

**REPORT OF THE
MISSOURI OPPORTUNITY
2000 COMMISSION**

AUGUST 10, 1987

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JOHN ASHCROFT
GOVERNOR
STATE OF MISSOURI

ROY D. BLUNT
SECRETARY OF STATE
CO-CHAIRMAN
MISSOURI OPPORTUNITY
2000 COMMISSION

JOHN H. POELKER
CO-CHAIRMAN
MISSOURI OPPORTUNITY
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Agribusinessman

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Dentist

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U.S. Dept. Health and Human Services

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PREFACE

The ability to perceive something not actually visible, as through mental acuteness or keen foresight, is one of the definitions of vision. This is the ability that Governor John Ashcroft asked the members of the Missouri Opportunity 2000 Commission to utilize and develop in a special project to benefit all Missourians. It is with a great sense of responsibility, respect, and a mixture of humbleness and pride, that the Commission now presents a report of its activities and its findings to the Governor.

As co-chairmen of the Commission, it is important that we take this opportunity to commend and thank each of the other members of the Commission who gave a year and one half of their time, intellect, and other capacities to participate in this important undertaking. We must also extend our appreciation to all of those people who participated in many ways in helping the Commission more fully develop its sense of vision of the future.

A biblical inscription is found within the dome of our State Capitol that states, "Where there is no vision, the people perish." With that quote in

mind, the Commission has labored throughout its various stages of discovery and the process of selecting specific recommendations to make to the Governor, that it is the general, greater public interest which the Commission must serve. Therefore, it is not unlikely that many of our findings will not be looked upon favorably by representatives of certain special interests and indeed, many may find some of our recommendations controversial. Not all of our recommendations are seemingly original or exciting, as in education, often times to make progress one must first ensure that basic tasks have been completed and learned before moving on to greater challenges. We have also offered ideas and concepts which should provoke a new way of considering problems of today and opportunities of the future. We hope that the Governor and all Missourians will join us in reaching a consensus about actions which should be taken to strive for a better and brighter 21st century in Missouri.

John H. Poelker, Co-Chairman

Roy D. Blunt, Secretary of State, Co-Chairman

FOREWORD

In December of 1985, Governor John Ashcroft, through Executive Order 85-21, created the Missouri Opportunity 2000 Commission. With that same action, he appointed Secretary of State Roy Blunt and former St. Louis mayor John Poelker, as co-chairmen of the Commission. In January of 1986, the Governor appointed twenty-eight other individuals to serve as members of the Commission. Those commissioners represent a cross-section of Missouri life including academia, labor, business, civic leaders, volunteers, local government, the state legislature and national government. Their membership also represents the media, health care, both small and large business enterprise, both public and private educational institutions, the agricultural community, and many other experiences common to Missourians.

The Governor specifically charged the Commission to study the future economic development and employment opportunities that would exist for Missourians between now and the year 2000. He requested that they give special attention to the role and contributions of education, health, and quality of life issues as they relate to economic growth and development.

Funding for the project was made available through both public and private support. Two grants were made available by the Division of Employment Security of the Missouri Department of Labor and Industrial Relations to substantially underwrite the ongoing activities of the project. These funds and approximately \$70,000 in donations from private foundations, corporations, and individuals were provided to the University of Missouri, which provided staffing, support services, and served as the fiscal agent.

Private individuals and organizations underwrote research and other data collection efforts of the Commission. Many of these efforts and the important information gained through the process would not have been available had it not been for this outstanding private sector support.

The University of Missouri has provided faculty and administrative support far in excess of that obligated by definition of the contractual relationship with the Division of Employment Security. These efforts have supplemented and enhanced the research efforts of the project.

The Division of Budget and Planning within the Office of Administration provided the services of its staff to research issues, to prepare special reports, and support the ongoing research of the project. The Office of Administration has provided clerical and other support functions for the project.

The report, **Missouri Demographic and Economic Profile: 1987-2000**, has been of particular benefit to the Commission. Early in the process, it was deemed necessary to have a general and broad understanding of future trends in population, migration, industrial growth, and employment patterns, that would be affecting the economy and other socioeconomic activities of the state throughout the period in question. Ryan Burson, a demographer, and Bill Beach, an economist, who are members of the staff of the Division of Budget and Planning of the Office of Administration were provided to support the staff of the Missouri 2000 project. They spent countless hours researching, analyzing, and preparing data that could be effectively utilized by the Commission. Their efforts culminated in the generation of this report. It has served as a base for future projections considered by the Commission and as an instrument to generate discussion about critical issues and concerns that will have a major impact on employment opportunities and the process of economic development. The Commission is especially grateful for the efforts and capabilities of these two individuals, and for the support that was provided by their supervisors, Tony Moulton, Assistant Director; Perry McGinnis, Director, Division of Budget and Planning; and, John Pelzer, Commissioner of the Office of Administration.

Rural Missouri In Transition, a commissioned report prepared by Eric Thompson, Thompson-McCormick, Inc., and Dr. Robert Glenn of Southwest Missouri State University, substantially influenced the work of the Commission. It is featured within this final report to the Governor.

Other state agencies and many private organizations have provided indirect support and countless hours of labor in the preparation and submission of position papers, special reports, and other studies which have been instrumental in the work of the Commission. For these endeavors, the Office of the Governor and the Commission are extremely grateful.

INTRODUCTION

Governor John Ashcroft's charge to the Missouri Opportunity 2000 Commission was multifaceted. He asked the Commission to study the future of Missouri; to explore the role and contribution of economic development, education, health and quality of life as each relates to the fulfillment of Missourians' expectations and aspirations; and, to analyze problems and barriers. He asked the Commission to develop hypotheses about alternative futures for Missouri, and to offer specific recommendations as to how the people of Missouri can work to improve the range of opportunities for a more fulfilling future.

The Governor also requested that the Commission study job opportunities and training for those who were chronically unemployed; for those who could not find meaningful employment because of physical, mental or educational handicaps; and for those who might become unemployed due to changes in technology or shifts in the industrial or economic base of this state.

The Commission was to recognize and emphasize the leadership role of the private sector and individuals in fulfilling aspirations of Missouri's citizens. The Commission's recommendations were to seek to promote improvement in, and better coordination of, private efforts that would contribute to the exercise of opportunity. The Commission was challenged to study the proper role of government in support of those private efforts.

To provide an effective set of recommendations to improve Missouri's opportunities, it was important that the Commission be selective in its findings, observations, and recommendations. The Commission determined to identify a limited number of critical issues, some of which were opportunities and others of which were problems which would need to be overcome.

From the basis of its studies for the past year and one half, the Commission could easily have identified many more issues, all of which would be deemed a priority by some individuals or groups. However, the Commissioners, although not unanimous in each and every recommendation, believe that these critical issues

discussed in this report are indeed some of the most crucial opportunities and challenges on which Missouri should concentrate its efforts as the state strives to improve the lives of each of its citizens over the next thirteen years.

Early in the process of its study, the Commission established four committees: **Education, Health and Quality of Life, Employment, and Economic Growth and Development.** During the project each committee engaged in information gathering sessions, collected thousands of pages of testimony, invited written testimony, and commissioned special papers on selected issues. A number of papers and other publications have been developed as supplementary to the work of the committees. The Commission met several times and provided the avenue for additional testimony, special presentations, and internal discussion of the issues. Members of the Commission, and especially the two co-chairmen, former Mayor of the City of St. Louis John Poelker and Secretary of State Roy Blunt, met with members of the public across the state during this process. Hundreds of individuals met in special meetings, forums, and other information-gathering activities to discuss Missouri's future. Several hundred individuals provided written comments to the Commission as a result of a state-wide newspaper survey. All of this input, along with analytical economic data, provided an excellent source of information about Missouri, its past, its present, and its potential alternative futures.

Three observations are confirmed by the Commission's study. First, Missourians desire to have the ability as individuals to fulfill their own needs and those of their families. In a greater sense, they also wish their communities to reflect these same abilities and values. Secondly, Missourians want and need opportunities to engage in meaningful employment and income-earning efforts which will provide the financial resources necessary to the exercise of opportunity. Third, there must be the framework in the state's economy which supports and encourages strong, buoyant, and rewarding business activity. If Missouri businesses and employers are to have the profits necessary to ensure that they are able to pay the kinds of wages that Missouri workers desire and deserve, productivity of the workforce

is a crucial issue. Competitiveness between Missouri and other states, and between Missouri and other strong competitors, will intensify throughout the remainder of this century. Therefore, productivity in the workplace will determine winners in that competition.

This report pursues four themes: 1) supporting and ensuring employment growth, 2) providing opportunity for economic development; 3) investing in human resources; and 4) enhancing quality of life.

While this report is addressed to Governor John Ashcroft, it is not purely an agenda for actions to be taken by state government. It is indeed a message to the General Assembly and the citizens of Missouri about a series of activities which should be undertaken by the state as a community. The recommendations will require the engagement and commitment of individuals, business, labor, the not-for-profit community, and local and state government.

Government alone cannot make Missouri's future. Believing so would be a mistake. Government, as an instrument of the public will, can provide leadership as well as support for the independent activities which should take place in the private sector. Where possible, the Commission suggests that efforts to fulfill or to implement recommendations suggested be accomplished in the private sector utilizing non-governmental financial resources. It is recognized, however, that some recommendations will require and demand the legal and financial framework of government. When possible, a partnership among individuals, private sector organizations, and government should exist in development of these recommendations or any other activities structured to promote Missouri's future. A coordinated, cooperative effort embracing all aspects of our state will be necessary to achieve the goals and aspirations that Missourians want for their lives now and in the year 2000.

RECOMMENDATIONS

In the year 2000, it would be a utopian situation in the state of Missouri if every citizen who wanted to work was gainfully employed, if the Missouri work force was well-trained, highly motivated and measurably among the most productive in all the fifty states. It would be ideal if the quality of the jobs in Missouri and the quality of the work environment provided by employers were such as to make work interesting, challenging, pleasant and fulfilling. Finally, it would be highly desirable to have, readily available to all residents of the state, a "system" that would provide job counseling, retraining, assistance with job searches and placement, and, if necessary, on a temporary basis, work experience opportunities.

Realistically, the utopian situation concerning work and employment probably will never fully be reached. But the ideals of full employment, fulfilling and rewarding work, a highly skilled and productive work force, and a caring "system" readily available to all to assist with matters of employment, still serve as the bench-mark objectives which give guidance and direction to the recommendations of the Commission.

It is through employment that individuals and their families meet their material needs, gain dignity and self-respect, exercise their talents, pay taxes and gain the opportunity to contribute in various ways to the larger community. On the other hand, it is through educated, trained, motivated, productive employees that businesses in the state of Missouri are able to earn the adequate profits that fuel growth, add new jobs, pay good salaries, provide substantial benefits, pay taxes, and contribute to the economic and charitable needs of the community and the state.

Therefore, in response to the demographic and economic changes projected to take place during the next thirteen years, it is imperative that business, labor, community organizations, and state and local government institutions work together — starting now — to mold and shape the employment situation we would most fondly hope to exist in the year 2000.

Every vision we have of the Year 2000, every clue we can gain as to the nature of our society

and our economy in the 21st Century, every extrapolation of present trends—in short, all of our best guesses about the future of Missouri—speak to the fact that our economy will be even more dependent on knowledge than it is today. We know that knowledge is the engine that drives our economy. For the last hundred years, according to Peter Drucker, the emphasis has been on the knowledge and technology that have guided higher capital investments, better machines and tools, and better management. But now, future gains in productivity, as the nation switches to knowledge work, will depend on the knowledge and skill that workers bring to their tasks.

Our commission's vision of the future of Missouri is one of an economy dependent on **people** educated to lead and to create and on **ideas** to provide the seed stocks for new and productive technologies. We see a society in which the role of education is recognized and honored. We see a society in which all Missourians can participate; in which barriers of race and color will no longer prevent some of our citizens from contributing as full partners.

Education is the single most important way by which the state can influence its own future. This is true economically although education does not need to be justified only in financial payoff to the citizens and to the State. Education empowers people. It allows them to maximize their potential. As individuals gain knowledge and skills, their lives are enriched; collectively, they enhance society.

The projections of the nature of family life in the 21st Century appear to be unsettling. The facts are that there will be fewer children, fewer families with children, and a higher percentage of single-parent families or of families with both parents working. Commissioner William Danforth has pointed out that in such a society each child will become a special treasure. We shall need to look very carefully at the influences of the new family environments on the development of our children.

Overall, the quality of our lives may be the most important set of issues to each individual. Essential elements that define that quality must be

addressed; these include health care, natural resources, older persons, children, and the family.

Consistent with the four themes previously mentioned, (Supporting and Ensuring Employment Growth, Providing Opportunity for Economic Development, Investing In Human Resources, and Enhancing the Quality of Life), the Commission has provided fifty-five recommendations in this report to Governor John Ashcroft.

I. SUPPORTING AND ENSURING EMPLOYMENT GROWTH

In the year 2000, the Missouri labor force will number 2.8 million persons. Almost every one of the projected 5.4 million Missourians will be directly affected by the relationship between the employee and the employer. The most obvious outcome of that relationship, from the employer's point of view, will be the productivity of the employee. From the viewpoint of the employee (and their dependents), the outcomes of the work relationship are much more profound, personal and broadly based.

Today, loyal, productive career employees want much more than the paycheck and other benefits that most employers willingly provide...and what these employees want is usually lumped under the umbrella of "Quality of the Job and the Work Environment." Briefly, these desires include:

- Safe, pleasant, healthful working conditions.
- Incentives (such as "pay-for-performance") for work productivity over and above the accepted norm.
- Fairness in all aspects of the work arrangement.
- Due process to consider claims of those who feel abused.
- A socially equal atmosphere, in which status symbols involving parking lots, cafeterias and office amenities are minimized.
- A knowledge of the person's personal work contribution to the final, finished product or service.
- Social support from co-workers.
- Decision-making involvement.
- Freedom from mental stress caused by shift work or unsatisfactory working conditions.

(1) The Commission recommends that an Office of Productivity (or Performance) Improvement

be established within the appropriate state agency for the purpose of advocating to employers and employees strategies and methods of improving productivity...while improving the quality of the job, the work environment, and job security.

The Missouri Office of Productivity Improvement could coordinate its activities with the privately funded American Productivity Center in Houston, Texas, and with other governmental and private groups which are engaged in research, testing and advocacy of methods of increasing worker productivity and job satisfaction. The new Missouri office could serve as a clearing-house for new approaches to increasing productivity, and should communicate and consult on a consistent basis with Missouri business and labor to promote productivity improvement and job satisfaction programs and techniques.

(2) The Commission recommends that employers — particularly in the growing service industries — should recognize and respond to the fact that most workers desire full-time employment, with fair and reasonable benefits and a livable wage.

Members of the Missouri work force spend as many waking hours on the job as they do at home; therefore, to the extent possible and reasonable, both the quality of the work and the quality of the workplace should be enhanced in order to further elevate the quality of life Missourians enjoy in the year 2000 and beyond. Employers should provide adequate health care coverage and other benefits to full-time employees and proportionate benefits to part-time employees.

Sweeping changes are expected to take place in the Missouri workplace between now and the year 2000. Economists and employment specialists differ over the extent and impact of those anticipated changes, but all agree the changes will be significant.

Current trends suggest that a major restructuring of Missouri's economy will take place during the final thirteen years of this century. The historical ranking of manufacturing as the top non-agricultural employer may give way to the service industry and to the retail sector. Unfortunately, low-paid agricultural workers may be joined by displaced manufacturing workers in becoming low-paid service and retail workers.

During the next thirteen years, we can expect to see a number of difficult disruptions in the Missouri workplace. A large percentage of manufacturing jobs will be restructured, and a significant number of service jobs will become obsolete. While new jobs will replace those that are lost, the personal trauma caused by the changes will be great and will focus more attention on the ongoing need for basic education and job-specific training and retraining.

It appears certain that fewer and fewer opportunities will exist for the untrained and for those lacking basic literacy, computational, and communications skills. Even those moving into relatively low-skill, low-paid service jobs such as cashiers, janitors, food-service workers and retail sales clerks, will require more skills than low-skilled workers of a few years ago.

It is encouraging to note that most economists agree that by the year 2000, the number of jobs available might equal the number of people in the work force. Unfortunately, they warn, the U.S. may well face job shortages and labor shortages at the same time — too few jobs for the unskilled, too few skilled people for many of the more sophisticated jobs.

(3) The Commission recommends that a coalition, partnership or association be formed among the many existing economic development groups in order to better utilize available resources and to develop better, more persuasive presentations.

Within the state, there are dozens of "economic" development groups or agencies, each with its own budget, priorities and methods of operation. Unfortunately, lack of consistent communication, coordination or cooperation exists between the many groups...partly because the groups are, or perceived they are, in competition with the others for new job development.

In reflecting upon the total economic landscape as it now exists in Missouri, it is obvious Missourians have much to be proud of, especially if "average" performance is considered adequate. Missouri, in many aspects, is a microcosm of what is happening nationally. That certainly is true in employment related matters such as income levels of our employed citizens, the rate of unemployment, the percentage of people living below the nationally established poverty level, payments to welfare recipients and the percentage

of high school age youth dropping out of school. The Commission, however, believes that the timing is right and the potential is sufficiently bright to justify the launching — now — of a major new initiative to shape Missouri's economy over the next thirteen years, so that by the year 2000, we have, for practical purposes, full employment and far less poverty.

While a zero unemployment rate is clearly impossible in an economy where people are constantly entering and leaving the job market, where technological advances cause workplace adjustments, and where marketplace realities cause some companies to succeed and others to fail, appropriate policies and concerted private and public action can improve the employment situation considerably.

A statewide commitment to full employment will require creativity, courage and commitment by those in leadership positions in both the private and public sectors. It will also require a commitment from the public at large, and an acceptance of the fact that education, training and retraining must be a lifelong process because they will, increasingly, be vital to everyone's working lives.

The Commission recommends that between now and the turn of the century, Missouri should model and experiment with a variety of full employment approaches so that by the year 2000, we have a system in place to serve the employment needs of our citizens.

In contemplating the dimensions and cost of a "full employment" system, one should remember that well over 90% of the work force would require little if any assistance. That's a fact today, and it should also be a fact at the turn of the century. Therefore, a "full employment" system would primarily serve those on the low end of the employability ladder...those who, for a variety of reasons, will need assistance, encouragement and counseling concerning ways to prepare for, and get placed in, productive employment.

The "system" should be readily available — at no cost — to all citizens through employment offices located throughout the state. In essence:

- (a) A person wishing help would visit an employment office and meet with a

counselor. The counselor, among other things, would assess the person's employability and then determine a personalized course of action for the person to follow.

- (b) Those with job skills would be given immediate help with job placement. Those without skills would be directed to public training resources. The cost of training and necessary support services could be paid by the state or federal job training funds.
- (c) Upon successful completion of training, the person would be given help with job placement.
- (d) Those not able to acquire a private-sector job over a modest period of time, would be placed into a public service job in a skill area which parallels, as closely as possible, the person's job qualifications.
- (e) Public service work might continue, at most, for 12 to 18 months. All along, job placement efforts would be made on behalf of the participant. At the conclusion of public-sector work, the participant would be phased back into a training or educational component, while job placement activities continued in behalf of that participant.

The Commission suggests that a State Full Employment Council be given the task of designing the various elements of the "full employment system."

(4) The Commission recommends that a Missouri State Council for Full Employment be established.

The Council would report directly to the Governor and would consist of representatives of all sectors — business, state and local governments, education and training institutions, labor, and community organizations. The Council would be vested with the necessary authority to develop, recommend, and then coordinate implementation of a new, forward-looking state employment policy calculated to achieve Missouri's year 2000 objective of full employment.

The establishment of a State Council for Full Employment is necessary in order to stress the importance of private/public responsibility and cooperation in all matters affecting the state's ability and efforts to achieve full employment by the turn of the century. The Commission suggests that the new state employment policy developed by the Council should encompass traditional public training programs, our public education systems, training provided by business, training sponsored by labor, economic development activities, the labor market information and labor exchange system, and the welfare and economic maintenance system.

Finally, the State Council for Full Employment would develop implementation timetables, and measurable objectives and specific courses of action so that the employment policy agreed upon could be quickly and effectively implemented at all levels throughout the state.

The Commission wishes to make several specific recommendations which should be part of a new state employment policy.

(5) The Commission recommends that private employers in Missouri accept more responsibility for providing training and retraining for their employees in order to help them become more highly skilled and productive.

It is sobering to consider the magnitude of the task we face in solving the "unemployment problem", which continues to be a complex, frustrating, costly matter. Many share the hypothesis that a reduction in the supply of labor, or that an increase in the number of jobs available, will solve the unemployment problem. Others disagree, feeling that in a free market society, the number of jobs created will roughly be equal to the number of productively-employable people who are available in the labor market...and that those who today are unemployed consist of two groups: a number of people in transition between jobs, a large body of people who simply are without job skills or the motivation to work, and therefore are unemployable.

Individuals who have not been able to effectively participate in the labor force in the past, and who have been forced to rely on various types of government income-maintenance programs, must be brought into the labor pool. Governor Ashcroft recently submitted a proposal to the General

Assembly which would require significant new efforts, both on behalf of government and of individuals, to ensure that our human resources are being tapped to their fullest. His "Learnfare" and "Welfare-To-Work" initiative is highly commended by this Commission. This is the first step in a series of many steps which must be taken to allow Missourians to more fully benefit from the positive attributes of Missouri's economy during the next thirteen years. Reduction of dependency must not be viewed as a punitive measure against disadvantaged individuals or simply as welfare reform; it must be approached as a vital economic initiative.

(6) The Commission recommends a major statewide effort be adopted by state government to provide an avenue for disenfranchised workers to move off dependency rolls and into the private labor market. Such initiatives must include basic education, job training, transitional financial support, and a child care provision.

The current welfare system in the State of Missouri contains many work disincentives which inhibit those on welfare from becoming productive working members of society. The elimination of benefits as people obtain jobs and get off the welfare rolls has the same effect as very high tax rates — in some cases an effective tax rate of 100% or more. The effect of these prohibitively high rates is well-known — a lessening of work incentive. Federal tax reform has, in part, solved the problem at higher income levels; welfare reform is needed to solve the same problem at the lower income levels.

The Commission feels strongly that any such reform be accompanied by sufficient safeguards to insure the adequate care of dependent children (in the case of working mothers) and the welfare of those unable, because of physical or mental disability, to enter the work force.

Missouri must also emphasize the great potential of employing handicapped individuals and making greater use of this largely under-utilized human resource to fulfill the new labor needs of Missouri business. Members of society, both of Missouri and nationwide, are coming to the understanding that while disability may be permanent, its effects are not necessarily insurmountable. People with disability need not be viewed as life-long dependents on society; many of them are able to support themselves, and most

prefer to work if they can. Work not only provides a livelihood, but offers opportunities for achievement, peer recognition, contribution to the community, and an active social life as well. Disabled individuals want those opportunities.

In generations past, employees who were severely disabled by illness or accident were repeatedly placed on disability retirement regardless of age. Today, more and more companies understand that these employees can return to work.

(7) The Commission recommends that Missouri employers proceed to dismantle at greater speed the attitude barrier among employers, and many of their personnel, that exists towards persons with disabilities.

(8) The Commission recommends that the Governor designate an ombudsman, with inter-departmental authority, with immediate responsibilities to develop systems and programs to utilize resources more effectively to help the transition of disabled individuals from school to work and from unemployment to employment.

Among Missouri's assets are the skill of its industrial workers, their broad training in a diversity of industries and their relative efficiency. In the changing workplace of the future, these assets will be enhanced by the greatest degree of cooperation and communication between business management businesses and workers; or in unionized establishments, between that business and its worker representatives.

The interests of management and labor, in terms of job creation and economic expansion, are closely similar. Growing national and international competition makes efficiency and greater productivity essential. At the same time, the quality of life and the prosperity of our communities has a direct bearing on the willingness of people to live and work in Missouri, on their job satisfaction and, therefore, on their working efficiency.

Cooperation between management and labor is already being increased through the labor-management councils in Greater Kansas City and St. Louis, and in many individual plants throughout the state. These models provide examples of the possibilities for productive relationships in all parts of Missouri.

(9) The Commission recommends that a Missouri Labor-Management Coordinating Council be established to encourage the development of more area labor-management councils in Missouri.

The State Council should be independent of any existing labor-relations agencies of the government, and should not in itself become involved in bargaining issues.

The area labor-management council concept is not new. It requires strong and dedicated leadership from both labor and management, and a good sense of direction. The concept is applicable in any area of the state where the economy includes organized industrial or service businesses covering more than one industry or labor organization. Any area sufficiently large to have a central labor body could be considered a possibility for a council.

Area labor-management councils would provide forums for discussion on mutually important issues, increase communication in a neutral environment, and concentrate the strength of all parties in civic improvement and economic efforts. They would also enhance the image of Missouri as an economically mature and constructive state. The absence of organized labor from any employment sector does not relieve individual owners and employees from the responsibility to work cooperatively toward the same objectives as outlined for management-labor councils.

The existence of responsible labor organizations in the state has given Missouri the opportunity to develop a relatively stable, experienced, trained and productive work force. While conflicts have received the greater publicity, the state's overall ability to respond to needs for efficient workers and the availability of leadership from both sides to approach problems gives Missouri a distinct labor-force advantage. The work ethic is alive in Missouri. This valuable asset in Missouri's economic development should be recognized on the state level, nourished, and used as a tool to improve the state's economic outlook. The State should encourage cooperation in both the private and public work sectors. The State should mainly exercise a coordinating and educating function and consider when appropriate, some temporary financial assistance to establish and assist local committee operations.

In the present world — and increasingly as the year 2000 approaches, the responsibilities of both labor and management are broadening. Their respective goals are overlapping each other, and cooperation is becoming as important as the traditional adversarial roles.

II. PROVIDING OPPORTUNITY FOR ECONOMIC GROWTH AND DEVELOPMENT

According to the projections prepared in conjunction with special studies for this Commission, Missouri, like other states in our region, will continue to suffer some erosion in her position among the states in per-capita income. Only by achieving a faster rate of economic growth can this outcome be avoided.

One way to this faster rate of growth is to attract new businesses to the state by encouraging businesses located outside the state to relocate or open branch facilities in Missouri. Such efforts are laudable, and the Commission supports them — but with some reservations.

First and foremost, the Commission fears that such efforts can sometimes degenerate into a bidding contest among the various states — i.e., who can design a package with the most giveaway (tax abatements, locally funded industrial revenue bond financing, etc.) in order to lure new business into their state. Such activity may be unfair to existing businesses in the state, who may be competing with the new businesses on a now unequal footing. It may be inefficient for the citizens of the state, who must pay through public revenues the cost of increased state services required by the new businesses. Such a bidding contest is analogous to a price war among producers of a product, where only selected customers of that product can enjoy the lower prices. Such price discrimination would not be allowed in general commerce, and it should be avoided, if possible, as part of the state's economic development policy.

In our rush to attract new business to the state, the state must also not overlook the far greater potential of our base of existing business within the state. A new job created by existing business has just as much economic benefit to the state as does a job brought in from outside. Equity and fairness demand that the existing business base be treated with the same degree of consideration as is new business which the state is trying to

attract. If economic incentives are offered to new businesses in order to entice them to relocate within the state, similar incentives should be granted to existing businesses which have the potential to create the same number of new jobs.

(10) The Commission recommends that greater emphasis be given to developing new jobs from the base of existing businesses in the state. We recommend that equal incentives be given to all businesses which create new jobs. Furthermore, we recommend that in recruiting out-of-state companies to come to Missouri, emphasis be placed on these businesses expanding their operations rather than simply relocating.

Studies have suggested that 90% of new jobs created between now and the year 2000 will be produced by small businesses, rather than by the Fortune 1000 companies, whose employment is expected to be stable or even declining. Thus, small businesses should be targeted for special effort by the state. Entrepreneurial effort should be encouraged through the expansion of the Small Business Incubation/Development Center concept. The resource demand on the state is low, due to the self-funding nature of these centers, and they are ideal vehicles to nurture small businesses through the difficult initial period of growth.

Currently there are four such centers. These centers are ideal vehicles for making the skills and resources of our public and private institutions of higher education available to small businesses.

(11) The Commission recommends that the Small Business Incubation/Development Center concept be expanded wherever economically feasible. Appropriate levels of funding should be made available to all centers which have a high probability of ultimately being free-standing, self-funding entities.

Another way in which the state could be of immense help to small businesses is in the area of export assistance. With this assistance, Missouri's small businesses and manufacturing enterprises could effectively meet and counter competition in foreign markets. The creation of an entity for export and import activity by the state would allow small enterprises to collectively operate and price Missouri products and services for international markets. It could work in con-

junction with the U.S. Department of Commerce to promote export activity.

(12) The Commission recommends that an entity be designated by the state to give assistance to small businesses interested in the export market, thereby allowing these small businesses to collectively organize and promote Missouri's products and services in international markets.

Missouri is blessed with many natural resources — her abundant water supply, temperate climate, fertile soil, scenic beauty, and central location. Add to that a first class multi-modal transportation network and a diversified economic base, and you have the necessary ingredients to attract new business to the state. However, Missouri's budget for economic development activities is limited and must be spent wisely, in a targeted fashion. In order to maximize the "bang for the buck" in our development expenditures, we must target those businesses for which Missouri offers a comparative advantage — i.e., those businesses which need the resources which the state possesses in abundance. Also, we need to focus our efforts on those industries which are faster growing and which will create more jobs for Missourians.

(13) The Commission recommends that industries be targeted in our economic development efforts in which we have specific comparative advantages. Resources should be focused on those things which Missouri can do best.

It is sometimes said that because of Missouri's unique diversity our state has an image problem. Certainly, this is not the case for recreation visitors to the state, for tourism ranks as one of Missouri's most important industries. Perhaps the problem is one of our own internal image — we fail to recognize the many advantages which the state offers. In any case, our image to the outside world is important.

(14) The Commission recommends that a thorough assessment of Missouri's national and international image be conducted periodically. Missouri must do a better job of marketing herself, both to Missourians and to those outside of Missouri.

This evaluation effort will in part assure that Missouri's image in the 21st century will be second to none.

One area where modest increases in state effort should reap substantial benefits is that of infrastructure improvement — specifically, roads and bridges. The availability of a good transportation network to move goods to market is a factor which ranks very high on most surveys of businesses considering expansion or relocation.

(15) The Commission recommends that emphasis by both the public and private sectors be directed to a continuing awareness program to stress the linkage between transportation-related infrastructure (roads, bridges, airports, water transportation, rail, etc.) and economic development.

In this area, voter education is a must. Voters must see that there is a direct payoff which results from higher taxes for this purpose — better infrastructure, and better (and more) jobs. Without this linkage, they will only see the increased costs, with the inevitable result of a negative vote.

The rural to urban shift in Missouri population is continuing. This population shift is most pronounced in those areas of the state whose economic base tends to be the family farm. Out-migration of population from small rural towns is also accelerating. If the pace of population movement continues at the present rate, only a limited number of small rural towns are projected to be economically viable at the beginning of the next century. To counter this trend, the expansion of existing businesses as well as the fostering of new enterprises is absolutely essential if rural Missouri is to maintain an acceptable level of economic opportunity.

Ways must be developed to promote entrepreneurship and local venture capital in these communities; both of which will be a significant part of the revitalization of rural Missouri.

(16) The Commission recommends the modernization of the University of Missouri Extension system to better provide small business and agribusiness assistance in rural Missouri and in Missouri's smaller communities, and to re-direct the extension service toward economic development issues facing the state in the next thirteen years.

(17) The Commission recommends that policies for rural Missouri must recognize that many communities are the lifeblood of an extended network in the state's rural economy. The state must ensure that the economic structure of these communities is strengthened by helping them seek and secure sources of off-farm employment, by sponsoring transitional programs for farmers leaving agriculture or combining agriculture with non-farm sources of income, and by providing job training. Our public and private colleges and universities should be used as a primary instrument for strategic rural economic development.

Projections indicate that Missouri will lose at least 10% of its farm population. The problems of Missouri's farm economy continue to be structural, not entirely as a result of debt and short-term agricultural economy down cycles.

Traditional agricultural employment has been on the decline since 1900. No reversals in this long-run trend are projected for the year 2000. Missouri farmers must also shift production emphasis from crops with declining markets to those with higher levels of demand.

Although Missouri "imports" about 90% of her energy requirements from other states or countries, her central location and proximity to natural gas and oil producing regions of the southwest has resulted in abundant and reasonably priced energy. At present, depressed oil prices on oil and natural gas have acted to the benefit of Missouri's consumers. Although low prices are expected to continue for the immediate future, most energy economists are expecting prices to escalate more rapidly at some point in the decade of the 90s. Thus, the citizens of the state may find themselves in the same predicament as they faced in the "oil crisis" years of 1973-74 and 1979-80.

In anticipation of this probable escalation of energy costs, the state should put in place a coherent energy strategy, based on Missouri's comparative advantages. These include:

- abundant water resources, with the possibilities of hydroelectric power generation.
- a diversified industrial base, giving the possibility of cogeneration plants in those industries with high energy needs.

- An abundant supply of high sulfur coal and the possibility of technologies (still in the research phase) to utilize this fuel efficiently and cleanly.
- a conservation ethic in its people, who would respond well to measures designed to encourage energy conservation.

(18) The Commission recommends that:

- (a) state government encourage development of Missouri's potential hydroelectric resources via appropriate tax policies and governmental actions;**
- (b) industrial cogeneration be encouraged by appropriate tax policies and by appropriate actions of the Public Service Commission;**
- (c) research activities in the areas of fluidized-bed combustion and of pipeline transportation of high sulfur coal (research currently being conducted at the University of Missouri and Southeast Missouri State University) be supported and expanded; and,**
- (d) both private and public organizations strengthen existing energy conservation programs and encourage initiatives.**

Like energy, water is a key resource for any state's well-being. On the whole, Missouri has been a water-rich state, but competition for the water supply is increasing for both out-state and in-state development. Water plays an important role for economic growth and development in the areas of agriculture, industry, power generation, and navigation. The employment needs of Missouri in the future may be extremely dependent on having access to abundant and high quality water resources. Missouri's population growth between 1987 and the year 2000 will result in increased demands on limited water supplies. Irrigation in agricultural areas will continue to need adequate water supplies. Other studies predict that there will be a 50% to 60% increase in commerce on the Mississippi River in the next 20 years.

One of the projected industry opportunity areas in Missouri's future is food and kindred products. Such industries are very dependent not only on

high volumes of easily accessible water, but also on high quality water. Such an opportunity simply reinforces the need for Missouri to do a better job of analyzing and understanding the importance of water as a factor in Missourians' quality of life, as an economic development resource, and as an essential part of a healthy economic environment.

(19) The Commission recommends that the General Assembly consider the approval of a sizable bond issue which would provide funding for a construction grants program or revolving loan program for sewage treatment grants to local governments.

(20) The Commission recommends that the Hazardous Waste Remedial Fund be maintained at least at its present level if not expanded.

Missouri has made significant progress towards addressing water quality problems since 1972. The current laws, when applied in a coordinated fashion, provide an effective framework for long-term protection to the resource of water as well as hope of restoration of quality in some cases where it is deteriorating. This strategy, with a rededication of effort and resources, should adequately protect Missouri's groundwater supply to the year 2000 and beyond. All Missourians need to develop a more thorough appreciation for the important role that water plays in each of our lives.

Few would dispute the necessity of economic development and growth in achieving a higher standard of living. But economic growth in a modern industrial (and even post-industrial) society is not without its costs. The unfortunate by-products of commercial activity — pollution, congestion, and other problems — are well known. Missouri's natural resources include not only those that are exploitable by industry, but also those that are enjoyed by her citizens and visitors. In fact, it can be argued that one of Missouri's most important economic resources is her scenic beauty, via the role it plays in our tourism industry.

The difficulty comes in balancing the competing demands of industrial development with the preservation of the quality of our environment. In order to arrive at a reasonable balance, the **cost** of pollution regulation must be carefully weighted against the **benefits** occurring from the lessened

pollution levels. This process is referred to as benefit/cost analysis. Fortunately, the 80/20 rule prevails in many cases — 80% of the pollution can be controlled at 20% of the cost. Thus, major improvements in environmental air quality are possible with only a nominal expenditure by business.

Of course, benefit/cost analysis only describes the conceptual framework to be used in setting public policy. The question of assessing the benefits and costs of such regulations is very difficult — industry will tend to overestimate the costs and understate benefits, while environmentalists will do the reverse. Some may object to the idea of trying to set a price tag on such intangibles as clean air, or even on human life itself, and yet such an effort need to be made, if rational public policy is to be set in this area. Properly done, Missourians can “have their cake and eat it too” in terms of a healthy economy and a healthy environment.

(21) The Commission recommends that:

- (a) benefit/cost analysis be applied to all existing and new pollution control laws to make sure that the benefits of pollution reduction exceed the cost to industry of achieving the reduction;**
- (b) pollution control laws indicate desired results (in terms of lower pollution levels) rather than dictate the means by which these results should be achieved. Both the private sector and municipalities should be left free to choose whatever control measures are most economical; and**
- (c) state laws be coordinated with existing and proposed federal regulations.**

III. INVESTING IN HUMAN RESOURCES

Literacy

The Commission recognizes that literacy will be an absolute necessity for economical and social survival in the year 2000. Not only employment, but also the ability to maintain health and enjoy the benefits of social programs will depend on the individual's ability to read and understand available material.

(22) The Commission recommends a massive statewide effort to eliminate illiteracy. Private employers should cooperate with educational efforts to reduce and hopefully eliminate the adult illiteracy which exists among Missouri's labor force and the population at large.

The Commission urges a high priority be given to extending literacy education services to the widest possible number of Missouri citizens. It is estimated that up to 20% of the labor force is functionally illiterate. Employers should give job security assurances to those functionally illiterate employees who step forward seeking help and provide caring counsel and support during the educational process required for the person to achieve literacy.

A literate employee will be more productive on the job, and better prepared to make a greater contribution to self, family and society at large as well as be more easily trained for subsequent changing job opportunities.

Education

Education at all levels and of all types was called during Commission hearings, time and again, the most important element in the assurance of employment for workers in the year 2000. The Committee has been told that high school graduates entering the work force directly need the same basic educational skills as those entering college. Obstacles to be removed include high proportions of high school dropouts (24%), functional illiteracy among many high school graduates, inadequate opportunities for handicapped persons and lack of training in work-ethic habits during the high school years.

“...Economists have found that the truly fundamental factors which can increase the rate of growth permanently are the rate of technical change (change resulting primarily from expenditures upon R&D) and the increase in the quality of the labor force.” (Ralph Landau and Nathan Rosenberg, Eds., *The Positive Sum Strategy*, Washington D.C.: National Academy Press: 1986)

The fears and concerns about the quality of education in the schools as expressed in numerous reports at the national and state levels are, too

frequently, well founded. High dropout rates, irrelevancy of curriculum, inadequate teaching, high functional illiteracy, lack of time spent in learning activities, and lack of accountability are some of the issues with which the reports have dealt. Missouri's Excellence in Education Act is designed to tackle many of these concerns in very forward-looking ways.

In both the state and nation, no consensus exists regarding the actions necessary to make significant improvements in the elementary and secondary schools. It is hard to reach a consensus on the purposes or the content of the curriculum of the common schools. As much as anything else, we face the problem of developing a sense of mission and a commitment to the basic educational system. We are encouraged by the fact that large sectors of our society are concerned and increasingly are participating in the national debate. The new partnerships among schools, universities, labor and business are signs of a new and encouraging day.

The Commission is in agreement on some other educational issues as well. It believes, for instance, that the state should take no action that would tend to diminish the presence and the role of the private educational system in Missouri. Private school systems make an important contribution to our society. We should develop programs of cooperative effort between public and private school systems at all levels.

There is a clear and present danger of a serious shortage of teachers for the 21st Century. The question, "Who will teach our children?", has no easy answer. Yet good teachers are the critical variable in the formula for educational excellence. An adequate number of high quality teachers to supply our needs are not now being prepared. Serious shortages of teachers are inevitable.

The problems of our schools are especially severe in rural Missouri. As one of our members, Jane Black, pointed out, "The school is the heart of our community. When the school goes, the community goes." Economic development in the Year 2000 may be a hollow achievement if the quality of life of a significant segment of our society is endangered.

The contribution of the higher education segment of Missouri's educational system in de-

veloping an educated work force is critical to the economic future of the state. The state will need highly educated and continuously educated citizens to staff and lead the knowledge economy. Missouri's higher education institutions will have a full agenda. But, they are underfunded for their task.

The state depends upon its first class research universities — Washington, St. Louis, and the University of Missouri — to carry out the research and development needed to produce the technologies of tomorrow and to provide the stimulus for entrepreneurs and industry to settle in Missouri.

There is a direct correlation between the quality of a state's universities and the economic development of that state. Witness, especially, Massachusetts, North Carolina, and California. The paramount interests of the state in economic development will encourage new and complex relationships between government and both public and private universities. These partnerships and those between the private sector and universities will create some entirely new and challenging problems in the organizations of universities.

An educated and well-trained labor force ranks at or near the top in every study of factors which influence businesses' expansion and relocation decisions. A strong primary and secondary education system, along with world-class public and private colleges and universities, is an absolute necessity if Missouri is to remain competitive in the search for new jobs.

The linkage between economic growth and modest, targeted increases in state effort in public education must be demonstrated to the voters, so that they can make the appropriate choice. So long as the voters do not perceive the broader benefits resulting from modest increases in spending in this area, they will tend to focus only on the costs of the increases, and the results will be negative.

The Schools

Introducing an element of competition into the public school bureaucracy could provide a structural change in the system leading to dramatic changes in attitude and to significant improve-

ments in the quality of education. Today the public school system controls both the production and the consumption of education. Education is a service provided by a bureaucracy. In a bureaucracy, even when it consists of decent, competent individuals, there is room for a variety of private agendas, since the people in the bureaucracy are not held accountable for the public agenda. Allowing parents to choose the school for their children could produce a more responsive system that would significantly alter the relation of the chooser to the chosen. The introduction of the market place into the education system has the potential for positive change in the system. New education programs on the local, state, or federal level should encourage parental involvement.

(23) The Commission recommends that the state adopt a policy giving parents and guardians in the urban areas the choice of which public school their children will attend. Schools should treat parents as the partners they are in the educational process.

(24) The Commission recommends that the state adopt policies lengthening the school day and/or lengthening the school year.

The potential payoffs from this structural change are several: (a) opportunity for more learning time, the single most important factor in determining whether learning does or does not take place in a classroom; (b) opportunity to increase total compensation for teachers, important to attract more of the best and brightest to the teaching profession; (c) opportunity to adapt to changing family environments (working parents, single parents); (d) and most importantly, the opportunity to give a sign to students and teachers that society considers learning important and worthy of hard work and serious attention.

(25) The Commission recommends that the State of Missouri, local school districts, public and private educators and parents or guardians embark on a major and dramatic program to substantially increase the "persistence-to-graduation" rate of our school-age youth.

For the past eleven years in Missouri's public high schools, on average, about 75.8% of all 9th graders persist in their education to graduation. In other words, **we lose approximately one-fourth**

of our young people before they graduate. No adequate record is maintained about what happens to these youths after they have once dropped out; however, there is strong evidence they show up in jobs on the lowest rung of the employment ladder, become the long-term unemployed, or worse, become involved in activities that are harmful to the community and society at large. Only a few are able to overcome their educational handicap to move on to more productive and fulfilling jobs later in their lives. Geographically, the problem of dropouts varies dramatically within the state, from a low in 1986 of 1% in Holt and Gentry Counties to a high of 13.1% in St. Louis City. The school dropout problem in Missouri is, in a word, staggering. So is its cost, in terms of lost productivity and the financial burden it places upon the state. School dropouts contribute more to Missouri's unemployment problem than any other factor. The problem must be solved. An initiative must be launched now to see that it is! School districts that maintain low dropout rates should be recognized and rewarded for their efforts. School districts that have persistently high dropout rates should be the object of special community interest and involvement to address the problems. We should simply not tolerate any longer the circumstances which cause high dropout rates and, in some instances, the districts failing in this responsibility should be penalized.

Efforts to improve the quality of academic education in the schools is essential and must be continued, but care should also be taken not to ignore the importance of building greater student understanding of the workplace. School curricula should begin in elementary school to relate basic academic knowledge of the working world. Beginning at the junior high and middle level schools, much greater emphasis on information about work is needed. It is an ideal time to provide counseling and special courses that can relate a student's interests, aptitudes and skills to the labor market.

Missouri schools should work with Missouri private industry and labor organizations to develop programs to introduce middle and high school students to the concepts of work habits, job attitudes and the work ethic, and to orient the future workers to the job market.

By high school, students should also have the opportunity to gain actual work experience through cooperative education or other work

study programs. For those who will be entering the job market immediately after high school, schools should arrange for students to receive accurate and complete labor market information. Public employment services should work actively with the schools to make this information available.

(26) The Commission recommends that elementary and secondary schools in Missouri continue to emphasize a thorough grounding in the command of the English language, reasoning and problem-solving, computational skills and basic science concepts. The education system in the State of Missouri should also take the necessary steps to provide greater student awareness of the workplace, of career choices, and of the lifelong consequences of productive work versus no work.

This education should prepare the high school graduate not only to enter the employment market with essential basic tools, but also to be able to meet the challenge of changing skill requirements and job retraining that will be an urgent need in the economy of the future.

Motivation of both public and private school students to achieve their best and to prepare for their futures is essential to improve success in the education process. Presentations by industry can build some of this motivation; so can exposure to workplaces and to examples of success. Business can emphasize the skills required and the benefits to be achieved. Labor organizations can reflect the opportunities available to skilled workers and assist in the definition of skill requirements.

(27) The Commission recommends that programs be initiated to coordinate the total improvement of education in the rural areas with a total rural revitalization program.

Though technology and the pooling and sharing of resources could greatly strengthen the quality of education in rural Missouri, efforts should be coordinated with other community innovations addressing job creation, economic development, local government, and social services as well as education. Economic development and human resources development go hand in hand. The development of rural Missouri will require coordinated, cooperative, community-based planning and implementation.

(28) The Commission recommends improving the classroom environment and the salary structure in order that sufficient numbers of able people be attracted to the teaching profession.

In the final analysis, the quality of education is dependent on the quality of classroom teaching. Continued attention by school boards and by local and state officials must be given to improve ways to make the classroom teacher more effective. Attention should be given to organization and structure and to providing opportunities for continued learning by the teachers through courses and colloquia.

Dedicated teachers are brought to the classroom by attractions other than high salaries, but low salaries can drive persons to seek jobs with better compensation. By the year 2000, Missouri teachers' salaries should rank at least at the midpoint of those of other states and should be consistent with competitive job opportunities.

(29) The Commission recommends that all elementary and secondary schools in Missouri provide school health services, which should include reasonable nursing services, periodic health examinations, referral services, other preventative health services, and individual consultation, confidential or otherwise, on problems affecting the students.

The Commission believes that quality of life and proper health care planning begins at the earliest stages of life. Good health practices, and the earliest prevention and treatment of disease, are learned during childhood.

It seems to the Commission that money invested in health education and health care direction at early ages will save substantial costs later. The schools are the earliest agencies in which the government has contact with citizens.

The advice and consultation should include help not only with traditional health problems, but also with pregnancy, drug and substance abuse, and child abuse. Legislation should provide protection for the professional involved, and for any agency to which the child is referred.

Vocational and Career Training

The future of Missouri workers will depend to an increasing degree on vocational and career training, not only at the secondary and post-secondary levels, but also during recurring periods of retraining necessary during their working lifetimes.

(30) The Commission recommends that vocational education and career training programs be strengthened and increased emphasis given to serving adults in need of retraining and specific job skill development.

Vocational education and career training today is being delivered by comprehensive high schools, area vocational schools, community colleges and some four year institutions. Agreements between these institutions could provide sharing of facilities and staff, provide access to collegiate vocational classes at area school sites and expand the number and kind of courses available across the state.

(31) The Commission recommends that vocational education institutions develop mutually supporting and cooperative relationships with private employers, employer associations and labor organizations in the state, to encourage and assist in the establishment of on-site vocational training programs within the private sphere. The state should consider providing appropriate incentives to increase the amount of employer-sponsored vocational education in the state.

Cost factors, and the need for specific skills for individual industries and establishments, will make employer-sponsored and based training increasingly important in the future. If Missouri schools provide well-prepared entry-level workers, employers will find an economic advantage in providing job-specific training.

The Colleges and Universities

Significant investments in selected university research programs will enhance the visibility and attractiveness of Missouri as a productive location for new and emerging companies. Strong research will also benefit existing industries. Whenever possible, existing strengths should be enhanced and cooperative agreements between universities and industries should be encouraged.

Without strong and visible research activity, Missouri will be at a disadvantage.

(32) The Commission recommends that private industry and the state strengthen their support for research universities as central to the ability of the state to compete in the attraction and development of industry.

As knowledge has become the critical factor in productivity, so learning and teaching have become the critical activities in putting knowledge to work. Young people returning from military service or re-entering college after stop-outs for work will need additional education. Education for late-life career changes may be especially important as the pace of economic development pushes more and more people into significant career shifts.

(33) The Commission recommends that we support our two- and four-year colleges and universities in developing extensive continuing education and retraining programs.

(34) All institutions of higher education should have a well-defined mission that relates the institution to the overall goals of the state and to the special constituencies that it serves.

(35) Each institution should strive to understand, and to the extent possible, measure its effects on its students.

Assessment of student progress is difficult and may be misleading or even have a stultifying effect on creative teaching, as it has in other countries. What is appropriate and meaningful for one institution may not be for another; therefore, assessment of student progress is a challenge best met by each institution, indeed by each department and faculty member. It is recommended that this matter be given high priority on each campus.

(36) The Commission recommends that each institution of higher education in Missouri encourage the enrollment of talented out-of-state students by waiving out-of-state fees for those students scoring in the top five percent of their graduating high school class.

The long-term economic benefit to the state in attracting bright young people to study here and

eventually to settle and work in Missouri far outweighs the foregone tuition income. Just as the "Bright Flight" scholarship program encourages the best and the brightest of Missouri's schools to stay in the state, so too will this policy encourage some of the best and the brightest in America to contribute to the future of Missouri.

Resources

Education is the single most important way in which a state can influence its own future. Missouri has a long history of making low investments in education. The Commission finds that the under-investment in education places the state at considerable risk in the intensely competitive economic development effort. The Commission recommends that Missouri find the resources to invest in the creation of a first-class educational system by the year 2000.

(37) The Commission recommends that by the year 2000 Missouri should rank 25th or higher among the states in education investments per student.

(38) The Commission recommends that the ability of school districts to acquire needed resources be improved by implementing legislation that reduces the requirements for voter approval on school bond issues from a two-third's approval to that of a simple majority. Immediate priority should be given to reducing the requirement for bond approval for bonds in which the purpose is to maintain or repair current facilities.

Education cannot be ordered or bought. It must be made possible by bringing young minds into contact with dedicated educators. Chronic under-funding, however, can weaken the enterprise. Faculty and administrators are mobile. The most talented can move to states that offer better salaries, facilities and support services. Moreover, if students are to be educated for the modern world, they must be exposed to state-of-the-art computers, well-stocked libraries and modern laboratories.

IV. ENHANCING THE QUALITY OF LIFE

HEALTH CARE

In some rural areas of Missouri, health care is inadequate. Three principal factors have con-

tributed to the lack of medical care in non-urban areas. They have been (1) a national physician shortage in the '60s and '70s, (2) the desire of physicians to practice where sophisticated diagnostic and treatment facilities are available, and (3) the ability of physicians to earn considerably greater incomes in the urban areas.

The physician shortage has, in a general sense, disappeared, but the other two factors are increasing disparities. Accessible, high-quality health care in rural areas must be planned while recognizing these problems. The rapidly-changing health care delivery system offers substantial opportunities.

(39) The Commission recommends the medical and health care professional associations and the General Assembly, with the advice of the Missouri Department of Health and of appropriate licensing boards, immediately study all professional qualification and licensing legislation, to revise and modernize the areas of permitted practice for health care professionals other than physicians and osteopaths.

Rising educational standards, professional degree requirements and controls made possible by computer technology allow other health care professionals to render expanded service. New professions — nurse practitioners and physician assistants, for example — have been established, and rules for their administration have become more standardized.

As under laws adopted elsewhere, many kinds of direct care could be administered on a local level by these other professionals, who would also provide triage service (a system of assigning priorities) to pinpoint cases requiring physician assistance. These cases would be referred to the nearest sources of service.

The availability of well-qualified nurse practitioners, etc., would increase accessibility and reduce the cost of health care in rural areas at no cost to the state. Enabling legislation which provides for appropriate licensing procedure, state oversight and professional supervision would assure a higher quality of care than is available in rural areas today.

(40) The Commission recommends that the Missouri Department of Health establish plans to encourage the extension of privately managed health care delivery systems into rural areas.

The Commission visualizes that, by the year 2000, a health care network could cover rural Missouri, with basic on-site daily service rendered by professionals employed by privately managed-care programs (such as health maintenance organizations). In rural areas such delivery systems would maintain intake and immediate care facilities, staffed by qualified professionals. Service by primary care physicians and osteopaths would be on a regular basis. Specialized care would be provided by referral to the organization's health care centers.

The network would use the newest concepts of health care management to minimize cost and ensure quality. There would be no cost to the state, unless it seems advisable to the Department of Health and the General Assembly to provide tax incentives or some pilot program money to induce providers to establish the service.

Medical services for the indigent are another major area of concern. Public hospitals in Missouri provide care to those persons who are eligible for no other kind of health care. Private hospitals also provide varying degrees of care for the indigent. Local cities and counties in Missouri, particularly in urban areas assisted by community- and religious-based health care institutions, have an outstanding tradition of caring for the poor.

However, the proportion of medically indigent is rising, and according to forecasts will continue to rise in the future. There will always be those who fall through the safety net provided by current legislation.

(41) The Commission recommends that an appropriate and state-wide, long-range funding formula be established for public hospitals, teaching hospitals, and other hospitals directly serving the poor, to compensate for care for the indigent without shifting the cost to paying patients or third-party payers.

This formula should include assurance to the hospitals that they can depend on compensation for a reasonable period, rather than depending on annual budget requests to the General Assembly.

Lifestyle choices such as smoking, poor nutrition, alcohol and substance abuse, and lack of exercise have made the greatest impact on health

status deterioration in the last 20 years. Children born to teenage parents and to impoverished families are at a greater health risk than other newborns and both the short-term and long-term health needs tend to be greater. Failure to intervene or to seek intervention in early stages of health deterioration or disease has a major impact on an individual's ability to stay healthy and on the total cost of health care provision to all Missourians.

The impact of lifestyles — both positive and negative — is being felt more and more by both individuals and business. New opportunities for industry to respond to consumer interest in health present themselves almost daily. Missouri could increase its appeal to consumers, businesses, and workers by evidencing its awareness of the benefits of healthier lifestyles.

Effective health promotion plans offer employers the opportunity to reduce costs, improve efficiency, and positively influence health. Business investment in good health and worksite health promotion programs benefit the employer, the worker, and the community.

Employers should assume an active positive role in developing health promotion worksite programs for their employees. The State's Departments of Health and Labor should be supportive of these activities. The Departments of Health and Elementary and Secondary Education should jointly assist in the development of more adequate school services in this area.

(42) The Commission recommends that individual Missourians, social and civic organizations, labor organizations, and employers all take an active role to encourage the development of healthier lifestyles by individuals, and of healthier home, work, and school environment.

Healthier newborns and children represent a fulfillment of parental obligations and social responsibility for the health of our children. Healthier children also mean healthier adults and more productive citizens.

(43) The Commission recommends that the State of Missouri continue to improve the Missouri Medicaid program by expanding the medically needy component to cover additional pregnant women and children. The state should also con-

tinue its effort to develop and provide adequate resources for an integrated perinatal program for the state's low-income population through improved coordination of Medicaid, prenatal clinic programs, and programs for the prevention of mental retardation.

(44) **The Commission recommends private health care providers to provide a state-wide network of accessible and affordable wellness centers to meet the preventive health care needs of Missourians.**

Another priority should be the integrating of minorities in health services. Nationally there is a great need of minority health professionals to address shortages of minority practitioners and researchers. Currently, the state does not have an overall strategy to increase the number of minority health care professionals who need to be integrated into the health care system by the year 2000.

(45) **The Commission recommends that the Missouri Department of Health initiate discussions with academic institutions, health departments, minority and non-minority health professional organizations, and other public/private sector entities to develop strategies to improve availability, accessibility and retention of minority health professionals.**

The Commission has found that the people of Missouri face one overriding, all-encompassing issue that embodies and affects all decisions that must be made relating to the delivery of health care, the enhancement of quality of life, care of children and the aging, and the assistance and support for the handicapped, the poor and the medically indigent. Over-simply stated, the issue is, "How should the people of Missouri accept and distribute the expanding technology in health care delivery, life prolongation, genetic engineering and procreation?"

Increased biomedical technology, cost containment efforts, an aging population, and quality-of-life concerns have led to unprecedented ethical conflicts within the health care delivery system in Missouri. Difficult choices about technology, access to health care, and the allocation of health care resources are being made piecemeal, often without knowledge of the broad consequences, and sometimes as the result of promotional efforts by special interest groups.

This inevitably leads to a gap between the values of the citizens of Missouri and the public/private health care policy in the state.

(46) **The Commission recommends that the Governor establish a permanent Commission on Bioethical Issues, comprised of a broad range of citizens informed on medical technology, science, health care delivery systems, social science, and the religious and ethical aspects of care.**

Such a Commission could place Missouri in a progressive and strategic position to assure that the values and concerns of our citizens are not only integrated into public policy set at the state level, but also considered in determining national policy.

The Governor should establish a special task force to study and propose the role, function and structure of such a Commission. Members of the task force should represent persons from both the private and public sector and should include representatives of professional, educational, legislative and public interest groups. The work of the task force should be funded by the State, and the task force should be asked to complete its work and make its recommendations within a specified period of time deemed reasonable by the Governor and the General Assembly.

The Commission has benefited from substantial testimony and a number of presentations pertaining to mental health. In addition, the impact of several trends on the psychological and emotional well-being of Missourians have indirectly raised concerns about Missouri mental health systems and services.

Three interconnecting issues have provided the basis for most of the Commission's discussions on mental health. Those three issues were free care, prevention versus treatment, and the financial resources of the state system. Testimony has suggested that Missouri is still in need of committing greater financial support to existing treatment facilities, including state institutions and community-based residential treatment centers. While these current needs must be met, planners and the legislature must recognize that a greater shift to prevention services will continue to be necessary to curb the need for unreasonable levels of future demand for treatment. Short-term neglect of prevention programs may have a tremendous impact on long-term treatment costs.

Dementia-related services will increase significantly in the future as a direct impact of the aging of Missouri's population. Senility, Alzheimer's disease, and other similar conditions will affect about 4% of the age 65-and-over population. For the age 80-and-older population, the frequency of dementia-related problems is about 20%. Given Missouri's demographic trends, the need for service will probably increase by 100% to 400% by the year 2000.

(47) The Commission recommends a significant budget increase for the Missouri Department of Mental Health with corresponding internal reallocations of resources to prevention-type services over the next ten years.

In future state budgets, the Department of Mental Health's share of the budget should be significantly enhanced. The department should also shift a greater portion of its budget to prevention services.

Child Care

Much data suggests that child care is the major issue of the future for employers. The pre-school and elementary school population (ages under 15) increased by 31% between 1950 and 1970, but decreased by 15% during the 1970s. This group, however, will remain about the same size (1.1 million persons or about one-fifth of the total population) for the rest of the century. Missouri's labor force numbers just under 2½ million persons. Forty-three percent of all women over 15 years of age participated in the work force in 1970. Now over 53% participate. Labor force growth is projected to be well below the 20% level recorded between 1970 and 1980. Growth rates are expected to fall to 13% during the 1980's and 9% during the 1990's. Most growth should come from increasing percentages of women entering the work force. Between 1985 and 2000, the number of female workers is expected to increase by 23% to 1.3 million, while the number of male workers is expected to grow only by 10%. Women likely will comprise just under half of the entire labor force in 2000. In contrast, they accounted for less than one-third of the work force in 1960. Their participation rate is expected to increase from the current 53% to 60% at the turn of the century.

Women are increasingly balancing dual roles as family providers and mothers. Between 1970 and 1980, the number of two-parent families in

Missouri declined slightly, while the number of single-parent families nearly doubled to a total of 115,000 families. Many working mothers have small children. The national data for 1984 indicated that half of all women aged 18 to 44 who gave birth in the preceding 12 months were in the labor force. As recently as 1976, less than one-third of the women with infants were in the labor force. Given the changes in the work force, employers are going to need as many women as possible in their future labor pools. Meanwhile, public demand for what might be termed the pro-family workplace is clearly growing. Over the past several years, the Roper Organization has polled Americans to determine which benefits they expect or desire from employers and which they do not. Roper's key finding in 1986: the rising demand for family-support benefits for working parents. The public's desire for company support of child care has grown 9% in five years: 33% of all adults now consider it either an employer's definite responsibility or a highly desirable employee benefit.

"The trends are clear. Support for the pro-family workplace will continue to grow as a growing proportion of the work force consists of parents who require new flexibility in balancing the demands of working and parenting." (David Blankenhorn, "Commentary," *St. Louis Post Dispatch*, August 29, 1986.)

The Commission has also found that society as a whole, as well as families, have an important concern about child care and support, particularly for single-parent households. Studies indicate that children from single-parent households are at a disadvantage compared to those children from two-parent households in the area of early scholastic performance. Other social and health issues indicate that both families and the community in general need to provide more support services for our most valuable resource, our children.

(48) The Commission recommends that employers investigate, develop, and support a variety of employer-sponsored child care programs. The Commission recommends that government employers consider setting an example by developing employer-sponsored and employee-supported child care facilities. Any workfare or low-income training programs funded by state or local government should include adequately financed child care components as well.

Larger employees, in particular, should investigate the feasibility and desirability of establishing on-site child care facilities. Studies have indicated substantial productivity gains for companies engaging in these types of employee benefits. Moderate-sized or smaller employers should look into employer-pooled resources for child care, or they should be active in supporting the development of community resources for child care. Employees may wish to underwrite through benefit programs, contract for services, or even assist employees in setting up not-for-profit child care organizations.

Child care, as an industry, provides great opportunity for individuals and organizations in both proprietary and non-proprietary realms to provide employment as well as important community service. Child care can come in a variety of important alternatives.

Both state and local government have an important role in ensuring that there is appropriate enabling legislation that stimulates the growth of the child care industry and benefits while adequately protecting the health and safety of children. Liability insurance issues need to be addressed by the state government in particular. Local government entities need to make sure that zoning laws do not unnecessarily infringe upon this important need to develop extensive child care facilities close to both home and employment.

Older Persons

Demographic studies predict that the proportion of elderly citizens will increase for the foreseeable future. The definition of "elderly" is moving upward. The fastest-growing proportion of Missouri's population is aged 80 and up.

Present programs for health care do not include adequate provisions for care of people who need long-term care, and particularly those who outlive their ability to take care of themselves and have no family structure to provide this care.

The Commission believes that it is the responsibility of the state to assist those citizens, who throughout their lives have supported the state with their taxes, but who now have lost both the ability and means to support themselves. The responsibility is both financial and social. By the year 2000, Missouri should not only provide adequately for the elderly in need, but should be deeply involved in programs to prevent this tragedy.

(49) The Commission recommends that private insurers develop and make available additional

and appropriate long-term care policies, and that the Missouri Division of Insurance study the new field of long-term care insurance, and propose a program that would encourage insurers to extend and expand such coverage to Missourians.

Planning for possible catastrophic need will be an increasingly important responsibility in the future. Education on the problem should begin during the person's productive years.

(50) The Commission recommends that the Missouri Departments of Social Services and Health develop and implement programs of information that will stress the importance of families' planning for long-term care.

Recognizing that "old" and "elderly" are subjective terms, the Committee believes that by the year 2000 the state will need the continued services of those beyond the accepted retirement age. These people provide experience and judgment that will complement the talents of an increasingly technology-oriented youth.

(51) The Commission recommends that the Departments of Higher Education and Social Services study the opportunities and develop plans for the encouragement and motivation of older citizens, who can and will expand their knowledge and qualifications to better serve the economic and social needs of the state and its younger citizens.

Low Income Housing

According to a special report prepared for the Commission, over 194,000 new units of housing are projected to be needed to accommodate Missouri's population increase by the year 2000. The elderly will require approximately 62,000 new units, and single individuals and families will require the remaining 132,000 projected new units be built. A grave concern of the housing industry, and of the government housing agencies in particular, is the question of what to do about the problem of substandard housing in the state. Of the 1.8 million occupied units, approximately 138,000 units, or 7.7%, are overcrowded, substandard, or both. These need to be replaced.

The need for housing does not necessarily directly relate to market demand. "Need" is defined as the lack of safe, sanitary, and decent housing for all Missouri residents; that is, the number of substandard/overcrowded units in this state reflects "the need" for that number of standard units. "Market demand", on the other hand, is defined as desire for, coupled with the ability to pay for,

standard housing units. Thus, the market demand for units is not reflective of the large number of inadequately housed persons. There will be a need to replace at least 35,000 units during the next thirteen years in Missouri. Studies also raise some concerns about the cost of housing for low and middle income families over the next thirteen years. Some of this concern is due to the fact that projections suggest that there may be a decrease in purchasing power experienced by some Missouri families and the possibility of an increase in the number of poverty-level families in Missouri.

The withdrawal of the federal government from active support of housing production efforts for low income persons places major new responsibilities on state governments to devise programs specifically dealing with the housing needs of citizens and to bridge the gap between what the private sector can be expected to do and what those persons in greater need require. Federal funds for low income housing are expected to continue to decrease substantially. The new tax laws appear to have major negative connotations for the development of low income housing by private investors.

(52) The Commission recommends the creation of a housing trust fund, income from which can be used to make housing subsidy grants or loans.

(53) The Commission recommends a general obligation bond issue of \$100,000,000 to provide capital loans needed to construct new or rehabilitate replacement units of public housing, community residential treatment facilities, and congregate housing for low-income elderly.

(54) The Commission also suggests that the Missouri General Assembly consider enacting new tax credits to encourage private developers to invest in low-income housing, particularly single family housing.

Grants or loans could be used for rental assistance, either in the form of a voucher that would attach to an eligible family or of a certificate that would attach to a participating housing unit. Such vouchers or certificates also could be used to provide a mortgage interest subsidy payment that might be combined with other programs such as "sweat equity" construction, rent with options to buy, and the sale of public housing units to individual tenants or to tenant cooperatives in order to broaden home ownership opportunities for qualified low-income persons whose incomes may be expected to increase through successful job development efforts. Income from the housing trust fund could also be used to make capital grants for very low interest loans to write down the development costs of housing production. This might

bridge the financing gap likely to be present in the low-income housing tax credit as provided in federal tax law. A housing trust fund of respectable size could be developed by the administrative transfer of three to five million dollars from Missouri Housing Development Fund balances. Additional sources that ought to support the trust funding could be a percentage of unpledged fund balances transferred from MHDC, phased-in legislative enactments, income from the interest on real estate escrow accounts, mortgage escrow accounts, or from tenants' security deposits.

V. SUMMARY

This report is the result of almost two years of study and research by Commission members and staff. Hundreds of Missourians have participated in various aspects of the project. Much important information and supporting documentation has been gathered, gleaned, compiled, and reviewed. In this report the Commission with a single voice has identified fifty-four recommendations which it believes are essential to the process of improving Missouri's future.

In selecting these recommendations, it is clearly apparent that there are adequate opportunities and responsibilities for many segments of the Missouri community in implementing these ideas, concepts, and programs. Business, civic organizations, charitable organizations, religious institutions, individuals and families, as well as units of government all must play a role to ensure that various recommendations find a basis of support, advocates for implementation, and processes for fulfillment. Overall, there must be leadership addressing all these various parties about the importance of breathing life into the visions which are represented here.

It is for these reasons that the Commission urges the Governor to play an essential role in educating Missourians about the necessity and desirability of using this report as a guidepost to creating a better Missouri. Indeed, the Commission envisions that the Office of the Governor should play a major coordinating role to encourage business leaders, civic leaders, and individual Missourians to take up the challenge to create new opportunities.

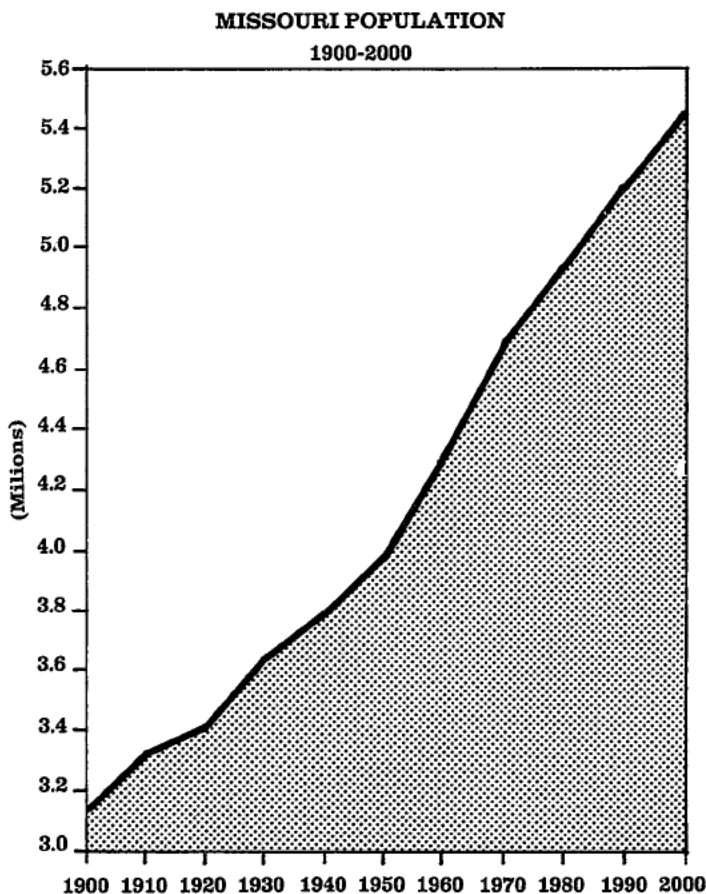
(55) The Commission recommends that the Governor establish a process to facilitate implementation of the recommendations presented in this report and a mechanism should be put in place to promote, analyze, and report to the Governor on the progress of implementation.

MISSOURI DEMOGRAPHIC PROFILE

Population Size and Growth

Missouri's ranking as the fifteenth most populous state has been sustained through modest, but consistent, growth. The state reached a population of five million persons in 1984—this on the one-hundredth anniversary of Harry Truman's birth, but more than thirty years after the state reached the four-million mark in his final year as president. If assumptions about future fertility, mortality and migration hold, it is likely that it will again take more than thirty years for Missouri to gain another million persons.¹ By the end of this century, the state is expected to grow by over four-hundred thousand persons. Such growth would be sufficient to fill a city the size of present-day St. Louis or Kansas City.

FIGURE 1

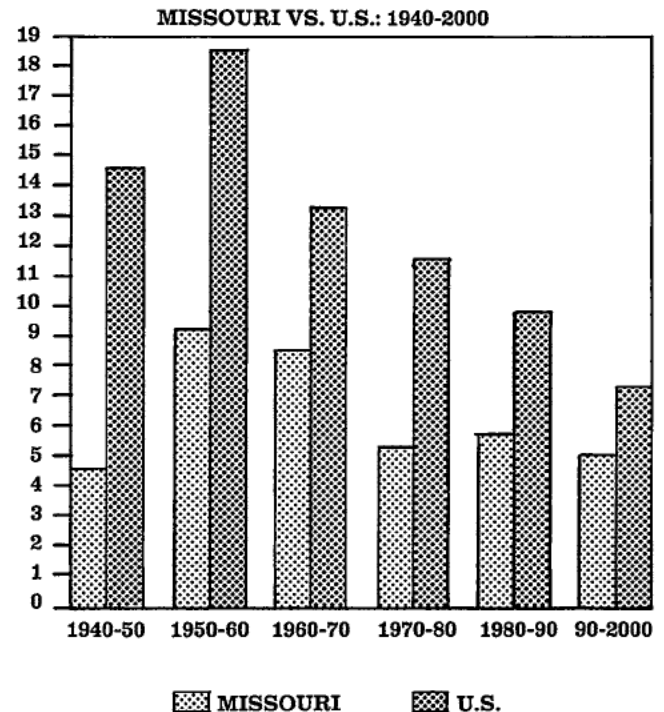


Sources: U.S. Bureau of the Census and Missouri
Division of Budget and Planning

Missouri has grown more slowly than the nation over the past fifty years. National growth rates from census to census have ranged from a low of seven percent during the depression years of the 1930s to a high of eighteen percent during the peak baby-boom years of the 1950s. Missouri's rates of growth have been roughly half these. The outlook for the remainder of this century is one of convergence. The national growth rate is expected to fall to 0.6 percent annually in the late 1990s, while the state growth rate is expected to fall to 0.4 percent. More similar migration, mortality and fertility patterns are responsible for this.

FIGURE 2

PERCENT POPULATION CHANGE



Sources: U.S. Bureau of the Census and Missouri
Division of Budget and Planning

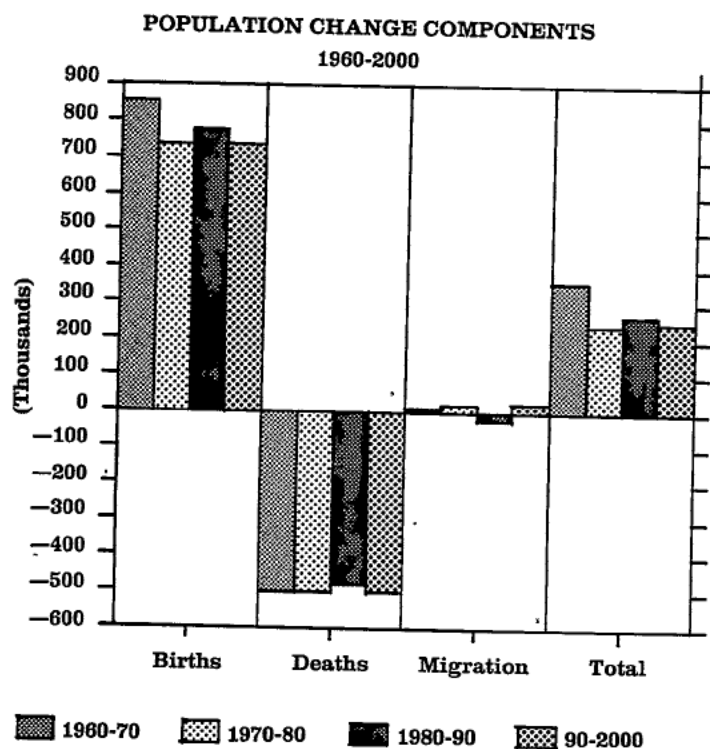
Components of Population Change

Unlike many states, particularly in the Sun Belt, Missouri has gained people less through migration than through natural means (births

minus deaths). From 1930 to the present, the state has actually lost 200 thousand more migrants than it has gained. But net outmigration has been offset by a much larger natural increase of 1.5 million people. Heaviest migration losses occurred in the 1940s and 1950s. Since 1960, Missouri has generally attracted more migrants than it has lost, but these gains have been greatly overshadowed by natural increases. During the 1970s for example, the state experienced a net immigration of ten thousand persons and a natural increase of a quarter of a million persons.

Projections indicate that there will be a slight migration loss between 1980 and 1990 (thirteen thousand) and a slight migration gain between 1990 and 2000 (twenty-three thousand). Net outmigration in the 1980s would be the result of heavy losses during the recession of 1981-1982 being partially offset by gains experienced afterward during economic recovery. Modest pre-recession levels of net immigration are projected for the remainder of the century.

FIGURE 3



Sources: U.S. Bureau of the Census and Missouri Division of Budget and Planning

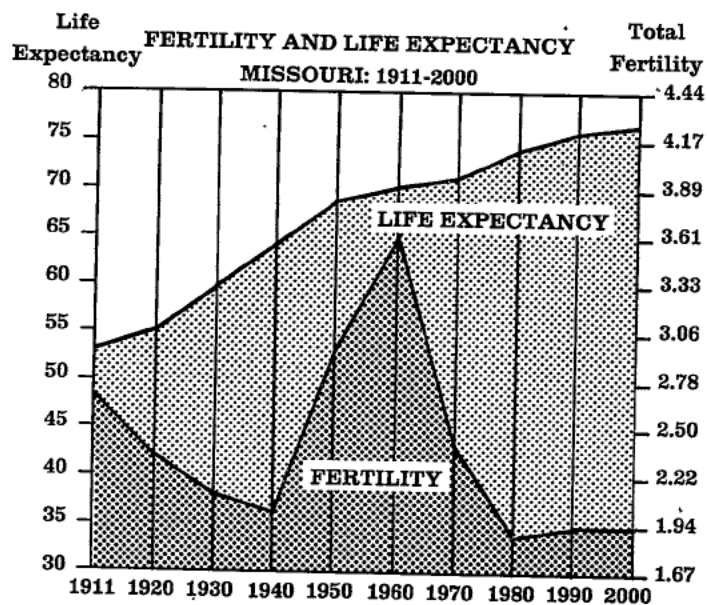
Increasing longevity has kept the number of deaths each year in Missouri at a relatively stable level over the past half century despite a growing population. Annual deaths have ranged from a low of forty-two thousand in 1942 to a high of fifty-two thousand in 1969, and have hovered near fifty thousand since the early 1960s.

Life expectancy at birth has risen steadily from sixty years in 1930 to seventy years in 1960 and today averages seventy-five years, seventy-nine for women and seventy-one for men. Continued improvement in such areas as maternal health care, general health habits and treatment of heart disease should cause longevity to rise even higher, although less dramatically. Life expectancy at birth is expected to rise to just under seventy-seven years by the year 2000. Annual deaths may remain below early-1970s levels until the final years of this century. A significant trend to look for in the second decade of next century will be the entry of the baby-boom cohort into the elderly age brackets. Annual deaths should rise substantially at that time.

Fertility

Fertility has been the fundamental agent of demographic change in Missouri and the nation. To understand recent population change and important demographic issues that loom ahead, one must look at the historic swings in fertility that have occurred over the last fifty years.

FIGURE 4



Sources: Missouri Center for Health Statistics and Division of Budget and Planning

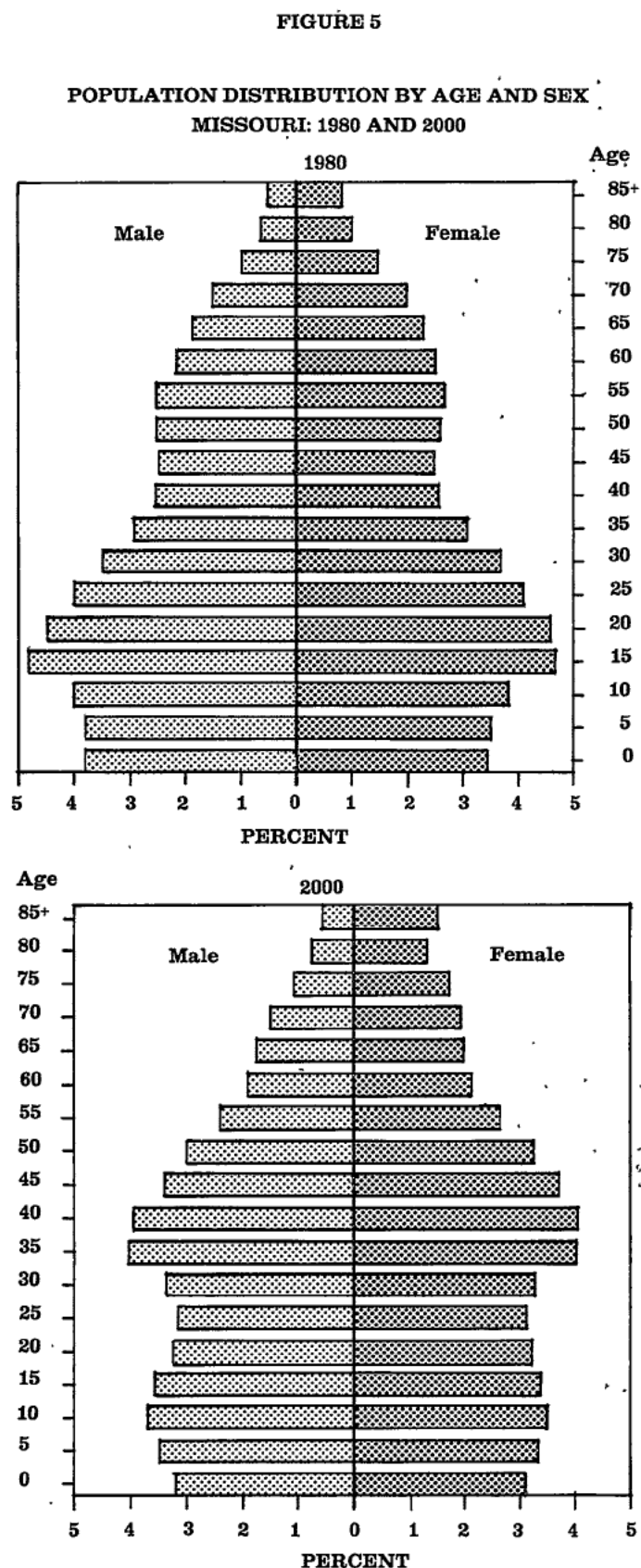
The total fertility rate declined steadily throughout the 1800s and into the early 1900s.² The downward trend continued during the Great Depression and reached a then all-time low of 2.0 live births per woman. Annual births in the late 1930s averaged under sixty thousand. The long downward trend in fertility reversed during the prosperous years following World War II. The baby-boom era, which was to last into the early 1960s, brought the annual birth total near one-hundred thousand in the late 1950s. At its peak in 1960, the total fertility rate rose to 3.6 births per woman—the highest rate of this century.

The fertility rate reversed again in the middle 1960s and dropped steadily until the late 1970s. During these baby-bust years, annual births dropped to an average just above seventy thousand. At its low point in 1976—just sixteen years after the baby-boom peak—the lowest fertility rate of the century was recorded at 1.8 births per woman.

Another minor reversal in fertility began in the early 1980s and is expected to continue into the early 1990s. More appropriately termed a “baby-boom echo” than a “baby boomlet,” this trend is less a product of rising fertility rates than it is a product of a larger child-bearing population (primarily baby boomers). Annual births are expected to approach eighty thousand in the late 1980s, when the fertility rate is at the near-historic low level of 1.9 births per woman. This rate is expected to hold throughout the 1990s. Factors that might increase fertility, such as earlier and longer marriages, and declining labor force participation and educational attainment among women, do not seem likely. As female baby boomers pass through the child-bearing ages in the late 1990s, annual births should fall to the baby-bust levels of the late 1970s (near seventy thousand per year.)

Age Composition

Historic swings in fertility have transformed Missouri's age profile. A review of changes in the state population pyramid since 1900 illustrates the transformation. In 1900, the pyramid was truly a pyramid, exhibiting a shape typical of less-developed countries today: wide at the base for the younger age groups, progressively narrowing towards the top for the older age groups.



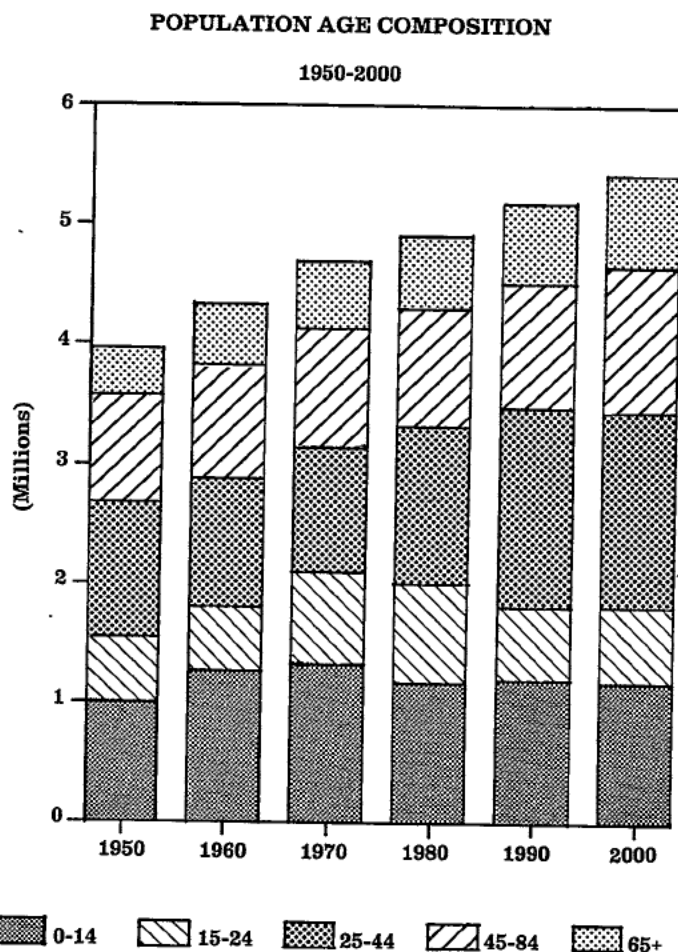
Sources: U.S. Bureau of the Census and Missouri
Division of Budget and Planning

By 1950, declining mortality rates had produced a proportionately older population. The population pyramid pattern was more akin to an onion dome than a pyramid. At its base, however, was a wide foundation representing the first large post-war birth cohorts. By 1980, the state pyramid had assumed a more rectangular cast, with one exception. Baby-bust cohorts at the bottom of the pyramid were roughly matched by the older age groups in the top half of the pyramid. Bulging at the middle of the pyramid was the large crop of teenagers and young adults born during the baby boom. By 2000, Missouri's elderly age groups, especially those over eighty, will have expanded, while the middle age groups will have gotten smaller.

The state's modest total population growth rate conceals major shifts in its age structure:

- The preschool and elementary school population (ages under 15) increased by thirty-one percent between 1950 and 1970, but decreased by fifteen percent during the 1970s. This group should remain about the same size (1.1 million persons) for the rest of the century.
- The high school and college population (ages 15-24) grew by sixty-four percent between 1950 and 1980. It is expected to shrink by nineteen percent during this decade and then remain relatively constant (0.7 million persons) throughout the 1990s.
- The early-adult population (ages 25-44) grew slowly between 1950 and 1980, but is expected to grow substantially this decade. By 1990, this age group will consist almost entirely of baby boomers. Its numbers will have swelled by twenty-six percent and will comprise the largest segment of society (1.6 million persons). The age group should shrink somewhat in the 1990s, as older baby boomers enter the upper age brackets.
- The late-adult population (ages 45-64) also grew slowly between 1950 and 1980, and should continue to do so until 1990. Afterwards, the influx of baby boomers should cause it to bulge. The age group is expected to grow by twenty-five percent in the 1990s (to 1.2 million persons).

FIGURE 6



- The elderly population (ages 65 and over) has grown consistently and proportionately more than any other age group since 1950. By 2000, the group is expected to have grown by eighty-seven percent, reaching a total of three-quarters of a million persons and comprising fully fourteen percent of the population.
- The "old" elderly population should grow at even faster rates between now and the year 2000. The seventy-five-and-over group is expected to grow at a rate four times that of the total state population. The eighty-five-and-over should double by century's end (to nearly 120 thousand persons).
- Elderly women are likely to continue to outnumber elderly men by a wide margin. By

2000, there will be an expected sixty-three elderly men for every one hundred elderly women. For those seventy-five and over, a ratio of fifty-one to one hundred is expected. For those eighty-five and over, the forecast is only thirty-six men for every one hundred women.

Labor Force Size and Composition

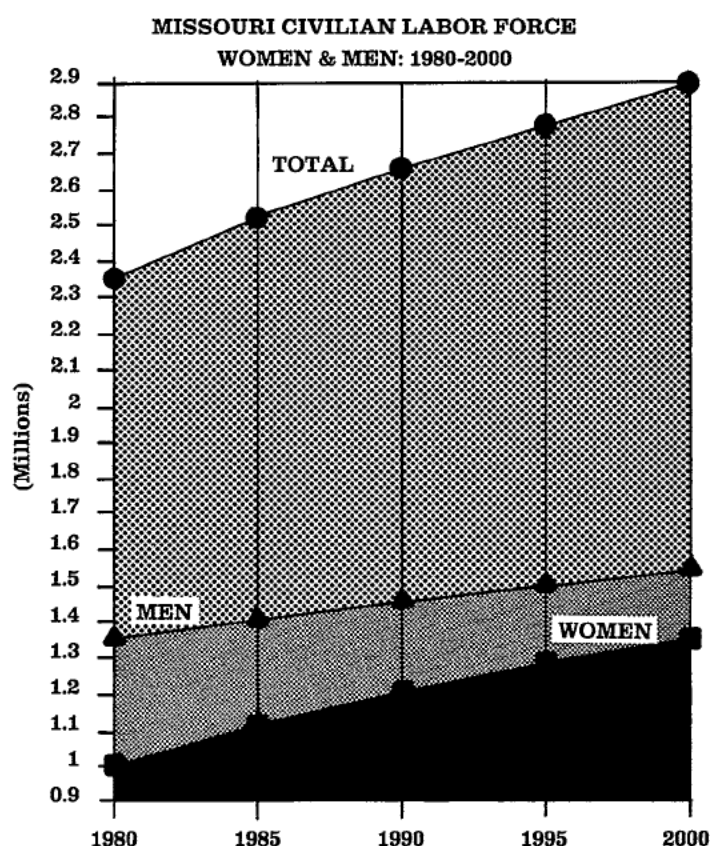
Missouri's labor force numbers just under two and one-half million persons.³ Two events caused it to grow enormously in recent years, but will also be responsible for much slower growth for the remainder of this century: the historic post-war shifts in fertility and diverging participation by women and men in the labor force. The demographic make-up of the work force will have changed markedly by century's end.

The state's civilian labor force grew by nearly four-hundred thousand persons during the 1970s. The Missouri economy absorbed one new worker for every five workers with which it began the decade. The initial entry of baby boomers into the labor force was partially responsible for this growth. Greater labor force participation by women was also responsible. Forty-three percent of all women over fifteen years of age participated in the work force in 1970. Now over fifty-three percent participate.

Labor force growth is projected to be well below the twenty-percent level recorded between 1970 and 1980. Growth rates are expected to fall to thirteen percent during the 1980s and nine percent during the 1990s.⁴ Baby boomers, who were responsible for earlier growth are already in the work force. New entrants into the work force are coming from the baby-bust era. Most growth should come from increasing percentages of women entering the work force. Between 1985 and 2000, the number of female workers is expected to increase by twenty-three percent (to 1.3 million), while the number of male workers is expected to grow by only ten percent (to 1.5 million). Women likely will comprise just under half of the entire labor force in 2000. In contrast, they accounted for less than a third of the work force in 1960. Their participation rate is expected to increase from a current fifty-three percent to sixty percent at the turn of the century.

Another factor contributing to the declining growth rate in the labor force is decreasing participation by men, especially older men. Eighty percent of Missouri men sixteen years of age and over were in the labor force in 1970. The current level is seventy-six percent. By 2000, the percentage is expected to fall below seventy-five percent. More men appear to be taking early retirement. Labor force participation by men in the 55-64 age group has fallen from seventy-nine percent in 1970 to the current level of sixty-eight percent. By 2000, the percentage is expected to fall below sixty-four percent.

FIGURE 7



Sources: U.S. Bureau of Labor Statistics and Missouri
Division of Budget and Planning

The age structure of the labor force will undergo pronounced shifts between now and 2000. The passage of the baby-boom cohort through the prime working ages, coupled with the entry of the baby-bust cohort into the teenage and young-adult working ages, will produce a proportionately older labor pool. The number of workers in the 35-54 age group is expected to grow half again as large as it is today—a rate of growth over

three times that of the total labor force. Meanwhile, the number of workers in the under-35 age group is expected to shrink by eight percent. For the age group over fifty-four, declining labor force participation rates will lead to fewer workers despite a growing population.

Future employers may find less-experienced (and lower-salaried) younger workers in shorter supply than their older counterparts. By 2000 seventy-two percent of the labor force will be in the prime working-age group (25-54), up from today's sixty-five percent. In contrast, seventeen percent of the labor force is expected to be in the entry-level age group (under 25), down from twenty-one percent today.

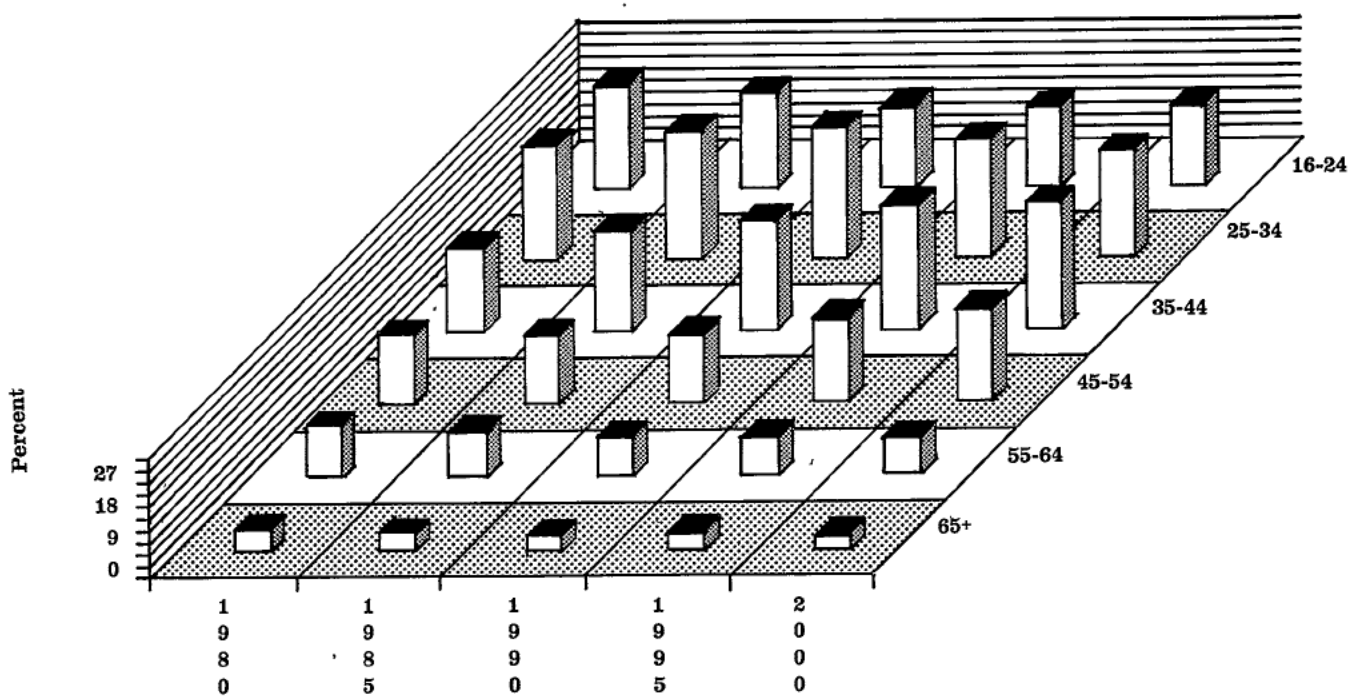
rather than "predictions" because they emphasize what past and current demographic trends portend for the future. Many of the assumptions inherent in the "middle-series" projections will turn out to be either too high or too low fifteen years hence. Nevertheless, massive changes are already under way that would be evident in most any projection scenario. Some implications of the major demographic trends in Missouri are discussed below.

Productivity

A consequence of the baby bust of the late 1960s and 1970s may be a tightening labor market as the century draws to a close. This would affect the roles young workers, baby boomers, the elderly and women play in the Missouri economy.

FIGURE 8

AGE COMPOSITION OF THE LABOR FORCE MISSOURI: 1980 - 2000



Sources: U.S. Bureau of Labor Statistics and Missouri Division of Budget and Planning

Implications of Demographic Trends

Sketches of future demographic events presented in this report are termed "projections"

Young Workers. The oldest members of the baby-bust cohort recently began entering the labor force. Its youngest members will reach working age in the late 1990s. The cohort may fare better in the labor market than did its large

predecessor, because its members will face less competition from their peers for their first jobs. The military and other employers of young workers may be forced to compete more intensely for baby-bust workers. Such labor market conditions could drive unemployment rates down, particularly for chronically highly unemployed teenagers. A tightened labor market could also drive wages up for these cohorts and for older workers.

Baby Boomers. The bulk of this cohort entered the labor force last decade, causing the median age of the labor force to drop to thirty-five in 1980. As the cohort ages, the median age will rise possibly as high as forty by 2000. The older work force should be a more productive one, although two counteracting forces could change labor force participation by older workers. Unprecedented competition for career advancement among the large crop of middle-aged baby boomers may lead to a higher incidence of job stagnation and early retirement. Alternatively, a tighter labor market and higher wages might induce older workers to keep their jobs longer.

The Elderly. Retirement policies and income maintenance programs have encouraged, if not driven, a growing proportion of older persons from the productive side of the Missouri economy. Less than a fifth of elderly men and a tenth of elderly women are in the work force. Although the great majority of older people evidently do not want to work, the trend toward longer and healthier lives after sixty-five makes the option of an extended work life more possible, if not more desirable. Economics will weigh heavily on decisions to remain in the work force. Lower-income elderly persons are much more likely to work than their counterparts. Tight labor markets might expand elderly labor force participation.

Women. Two of the most significant socioeconomic changes in Missouri since World War II have involved women: fertility is lower and labor force participation is higher. These interrelated events are linked to trends in higher education and family composition that appear to have enough momentum to carry into next century. Delayed marriage and childbearing are giving women more time to attend college or gain early work experience. The median age of women at first marriage has risen steadily from just over twenty years in 1950 to over twenty-three years today. (The median age for men has risen to nearly twenty-six years.) For the first time in

Missouri history, women outnumber men in state colleges. They accounted for little more than one-third of college enrollments in 1950. National projections indicate that women will increase their share to fifty-two percent in the coming decade.⁵

Women are increasingly balancing dual roles as family providers and mothers. Between 1970 and 1980, the number of two-parent families in Missouri declined slightly, while the number of single-parent families nearly doubled to a total of 115 thousand families. Ninety-six thousand of these families were headed by women with no spouse present—half again as many as in 1970 and fully fifteen percent of all families with children in 1980. Eighty-two percent of these mothers participated in the labor force in 1980. Seventy-one percent did so in 1970.

Many working mothers have small children. National data for 1984 indicate that half of all women aged eighteen to forty-four who gave birth in the preceding twelve months were in the labor force. As recently as 1976, less than one-third of women with infants were in the labor force. The need for child care services has risen accordingly. The number of Missouri establishments providing day care for preschoolers increased from just over five hundred in 1977 to six hundred and fifty in 1982.

The combination of trends toward delayed marriage, rising educational attainment, increasing household headship, and an expanding work history signal continued low fertility and increasing labor force participation among women. Tightening labor markets in the late 1980s and 1990s may feed these trends. Wages could rise sufficiently high to make the opportunity cost of delaying or forgoing jobs greater than the cost of delaying or forgoing parenthood.

Education

The image of baby-boom bulge and baby-bust trough moving up the population pyramid illustrates well the expanding and shrinking demands placed on Missouri's schools and colleges. The youngest members of the baby-boom generation now are in their final years of college, while the less numerous baby-bust generation has just begun to enter college. Members of the baby bust will dominate high school enrollments into the early 1990s, as they did elementary enrollments in the 1970s and early 1980s. Children from the slightly larger baby-boom echo are gradually replacing the baby bust in elementary schools, as

they will in the state's high schools and colleges in the coming decades. Sustained low fertility should produce much less dramatic enrollment fluctuations than occurred in the last three decades. Some effects of demographic change on school enrollments are discussed below. A more detailed prognosis for Missouri enrollments appears in the Appendix.

Elementary Schools. The last of the baby boom passed elementary-school age (5-13) in the late 1970s. Enrollments peaked in 1970, when the elementary age group swelled to 830 thousand children. Afterward, as baby boomers graduated to high school and members of the baby bust came in behind them, the five-to-thirteen age group shrank rapidly. When elementary enrollments began to stabilize in 1983, the elementary-school age group had fallen to 640 thousand children, a loss greater than the number of first and second graders in 1970.

The last of the baby bust will not leave elementary school until the end of this decade. But most of today's elementary students are from the echo generation. This cohort will dominate elementary enrollments for the remainder of the century. The five-to-thirteen age group is expected to increase by thirty-five thousand children (six percent) between now and 1990. In the upcoming decade, the increase should slow to twenty thousand children (three percent).

High Schools. High school enrollments peaked in 1977, when the largest baby-boom birth cohorts were of high-school age (14-17). Nearly 380 thousand teenagers were in this age group. Enrollments dropped steadily thereafter, as baby-bust students began to reach high-school age and baby-boom students began to reach college age. Today, slightly over 300 thousand teenagers are of high-school age, or twenty percent fewer than eight years ago. The prospect remains low until the early 1990s when the youngest members of the baby bust reach college age and the oldest members of the larger baby-boom echo will reach high-school age. Between 1985 and 1990, the age group is expected to decline another ten percent. The influx of the echo generation in the 1990s should cause the high-school-age population to grow again, although at a slow rate. It is expected to regain its 1985 level by century's end.

Colleges. Future trends in college enrollments are less easily assessed than mandatory ele-

mentary and secondary enrollments. Part-time attendance is on the rise, and college campuses have a much broader spectrum of students than before. Women and older people are claiming increasing shares of college enrollments. The majority of college students continues to come from the traditional college-age group (18-24). Nearly seven in ten Missouri college students were in this age group in 1981. It is instructive to look at change trends for this age group.

Colleges now face problems that elementary and secondary schools faced in turn before them: baby-bust students are replacing baby-boom students. The baby bust will occupy the traditional college-age group for the remainder of this century. The somewhat larger echo cohort will not reach college age until the late 1990s. College enrollments peaked at just under a quarter of a million students in 1981. At that time there were an estimated 640 thousand eighteen-to-twenty-four-year-olds living in Missouri. Today the group numbers 600 thousand people, or about six percent fewer than in 1981. Enrollments over the same period also fell by about six percent (fifteen thousand students). By 1995, the traditional college-age population is expected to fall to 490 thousand persons, or three-fourths its 1981 level. Incoming echo cohort members in the late 1990s should bring the eighteen-to-twenty-four group back over the half-million mark by century's end—about the same level as in 1970.

The effect on college enrollments is uncertain. State and national forecasts generally show declining enrollments into the 1990s. Projections prepared by the National Center for Education Statistics indicate a five percent decline over the period 1982 to 1992. Projections by the Missouri Coordinating Board for Higher Education indicate even greater decline.⁶ Others predict that this will not happen. College enrollments may rise in the late 1980s, as the many children in the small families headed by middle-aged baby boomers will reach college age. Siblings from smaller families have been shown more likely to go to college than children from large families.⁷

Health Care

Missourians have three decades to prepare for sharp increases in the demand for health care associated with an expanding elderly population. Growth in the population aged sixty-five and up will be substantial but undramatic for the remainder of this century, but by the second decade

of next century, there will be a huge influx of baby boomers into the sixty-five-and-up age group. Needs for hospital and nursing home care will rise accordingly, as will needs for rehabilitation and in-home support services.

Health care needs and problems will vary among elderly Missourians because they are far from being a homogeneous group. The oldest old—those eighty-five years of age and over—differ greatly from younger elderly persons both in levels of income and living arrangements. Decennial census data for the U.S. show that the average personal income in 1979 of the oldest old was twenty-five percent lower than that for all elderly persons. This was due mostly to marital status: married couples are generally better off than single people (fuller Social Security and pension benefits), and the oldest old are more likely to be single. Census data reveal that six of every ten householders aged eighty-five and up lived alone, compared to four of every ten in the 65-84 age group.

If the oldest old double in number by 2000 as expected, and if current income and living-arrangement patterns remain intact, much greater stress will be placed on the health care system for the oldest old. With a higher susceptibility to chronic and disabling illness, their need for increasingly expensive care may come at a time when they are less able to pay for it.

Health care problems in the year 2000 will be mostly women's problems. Women over eighty-five will outnumber men over eighty-five by nearly three-to-one. Data from the 1980 census illustrate the make-up of elderly households. Sixty percent of all Missouri households headed by persons eighty-five and over were women. Eight in ten of these women lived alone. Their average personal income was a third less than that of all elderly persons and two-thirds less than that of married elderly persons.

NOTES

¹Population projections in this report are "middle-series" projections prepared by the Missouri Division of Budget and Planning and the U.S. Bureau of the Census. They are based on assumptions about the most probable courses of fertility, mortality and migration, given historical patterns. See: U.S. Bureau of the Census, *Projections of the Population of the United States, by Age, Sex, and Race: 1983-2080*, Current Population Reports, Series P-25, No. 952, 1984.

²The total fertility rate is defined as the average number of births each woman would have if the age-specific birth rates of a given year were to apply throughout her remaining reproductive years.

³The civilian labor force consists of non-military persons sixteen years of age and over who are employed, laid off or seeking work. About twenty-five thousand military personnel (one percent of the total work force) are stationed in the state.

⁴Labor force projections are based on middle-series population projections and a projected "middle growth scenario" of labor force participation rates—the percent of each age-sex group working or seeking work—prepared by the U.S. Department of Labor. See: U.S. Bureau of Labor Statistics, *Employment Projections for 1995*, Bulletin 2197, 1984.

⁵See: National Center for Education Statistics, *The Condition of Education*, 1984.

⁶See: *Demographic Trends in Missouri's Population and Enrollment Trends and Projections*, Master Plan III Assessment, Project Report Number Three, June, 1983. Recent enrollments have declined less than projected.

⁷James Gundlach, Auburn University, unpublished paper for Southern Regional Demographic Group, 1984.

MISSOURI ECONOMIC PROFILE

OVERVIEW

Economic life in Missouri traditionally has flourished on a strong agricultural and manufacturing foundation. The state has drawn its agricultural strength from a richly complex crop and livestock industry happily situated in the country's most diverse and active river system. The waterways of the Mississippi Basin have created distinctly differing soils and topographical conditions which, in turn, have led to healthy diversity in the state's agricultural production. Missouri has benefitted from this diversity, and has not, like many states, found itself relying on a small group of products or a handful of crops.

Missouri manufacturers, like their counterparts in agriculture, have used this natural transportation system and rich resource endowment of the state to their considerable advantage. Industrial production developed early along the major waterways, principally in St. Louis and Kansas City, and has provided economic opportunities for Missouri's growing population throughout most of the twentieth century. Missouri manufacturing produces automobiles, chemicals, clothing, aircraft and aerospace products, and a wide array of other goods for domestic and international sale. As in agriculture, industrial diversity produced economic strength. In fact, interaction between these two vital economic sectors during the past one hundred years enabled Missouri to achieve eminence among midwestern states, not only in economic growth, but also in the quality of urban and rural life and in the arts and educational opportunities.

It is increasingly apparent, however, that the Missouri economy has entered a stage of transition. Intensive study beyond the scope of this paper is needed to distinguish trends which promise opportunities from those which pose problems. Still more advanced analysis will be needed to identify actions to capitalize on emerging opportunities and to avert or correct possible problems.

The purpose of this profile is to present a broad

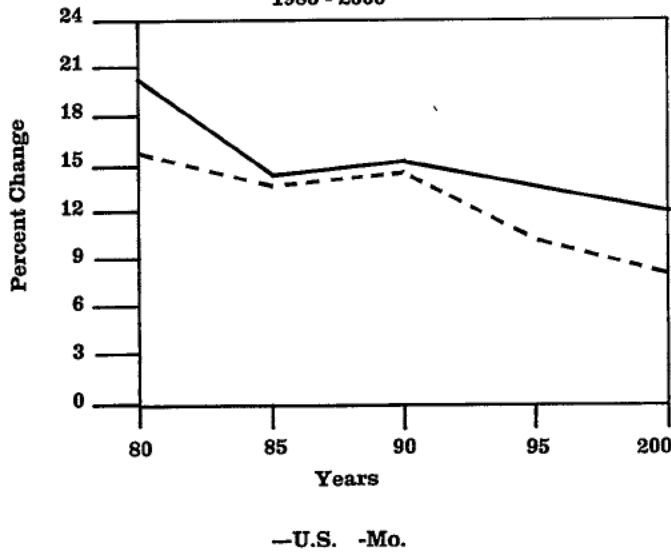
overview of trends within the Missouri economy between 1980 and 2000 as a database for the Missouri Opportunity 2000 Commission. The overview rests on employment and income estimates constructed from numerous economic and demographic variables.¹ Like all projections or estimates, those contained in this report are probability statements about future activity. As such, they are proper subjects for debate and further technical exploration.

There is an argument that employment growth, however it may occur, is good: that is, the less unemployment the better. Many economists, however, have voiced concern with the quality of recent employment growth in the United States.² Their concern is based largely on trends which appear to emphasize relatively low-paid service sector jobs over better-paid jobs in manufacturing, mining and other more basic industries. These analysts argue that a full-employment economy in which wages are low is not preferable to a high-wage economy with modest unemployment. Others take issue with the empirical basis of this argument and suggest that a structural shift toward service industries and low-paying employment is neither apparent now nor likely in the future.³

This overview does not attempt to resolve the current debate regarding long-run, structural change in the national economy. A number of projections and indicators reviewed here, suggest that Missouri will continue to prosper. At the same time, other, countervailing trends appear to be at work and may signal an erosion in the ability of Missourians to command increasing levels of goods and services. Projected, long-term patterns in per capita personal income, for example, raise one such warning flag. In 1960, per capita real personal income in Missouri stood at \$2,103, second only to Kansas among the Plains states and only 5% below the national average. But, by 1982, Missouri's per capita personal income stood sixth among the seven Plains states at \$10,170 and 9% below the national average. Projections conducted for this review indicate that Missouri's nominal per capita personal income could tripple by 2000, but, at that level (\$31,450), it would slip to 11% below the national average.⁴

FIGURE 1

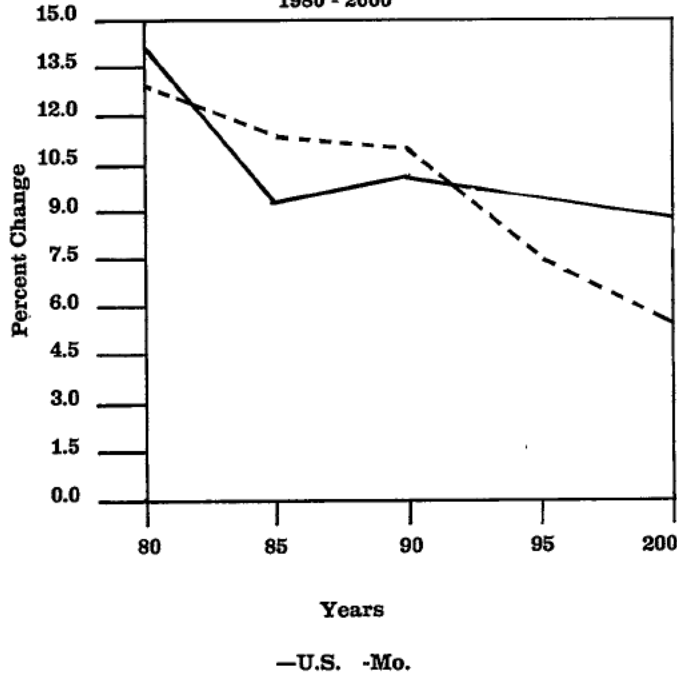
**FIVE-YEAR CHANGE RATES IN REAL TOTAL
PERSONAL INCOME, U.S. AND MISSOURI
1980 - 2000**



Sources: U.S. Bureau of Economic Analysis and Missouri
Division of Budget and Planning

FIGURE 2

**FIVE-YEAR CHANGE RATES IN REAL PER CAPITA
PERSONAL INCOME, U.S. AND MISSOURI
1980 - 2000**



Source: U.S. Bureau of Economic Analysis and Missouri
Division of Budget and Planning

As shown in Figures 1 and 2, projections measured in "real" or constant dollars also suggest a decline in Missouri's ability to command goods by 2000. The historical and projected trends of Figures 1 and 2 are based on personal income data corrected for inflation. That is, the data behind Figures 1 and 2 measure only "real" or non-inflationary increases in income.

Figure 1 indicates that Missouri's total real personal income will grow approximately 14% during the period 1985-90, only slightly less than the 15% national growth rate. In terms of per capita real income, Figure 2 shows Missouri's growth exceeding the national growth rate in 1990, as it did in 1985. Both Figures project positive Missouri growth in 2000 but a relative decline compared with national indicators after 1990. Thus the growth in total real personal income in Missouri is projected to decline to 7.97% by 2000, approximately 64% of the national rate, and per capita real income growth in the state to decline by 5.49%, or 62% of the national growth rate.

Several factors may account for the projected slowing in purchasing power growth rates, nationally and in Missouri. Missouri's once expanding agricultural base has been affected by soil erosion, fundamental changes in the domestic and foreign markets for its products and an agricultural financial structure in the process of rapid, and perhaps disruptive, restructuring. The manufacturing sector also is changing. Missouri manufacturers of durable goods see their market shares decreasing in the face of increasing foreign competition. Producers of nondurable goods such as shoes and clothing find it increasingly difficult to compete with foreign producers of the same goods. In addition, a rapidly growing service sector is successfully altering the flow of investment dollars away from manufacturing and agriculture and toward its own financial needs. Projections indicate that by the year 2000 the service sector in Missouri will exceed manufacturing in the number of people employed and will nearly equal manufacturing in the amount of wages generated.

The projected trends in Missouri personal income mirror the national economy but at more acute rates. The root causes almost certainly are similar at both levels. Many economists consider two, crosscutting factors to be responsible at the national level: the decline in agricultural

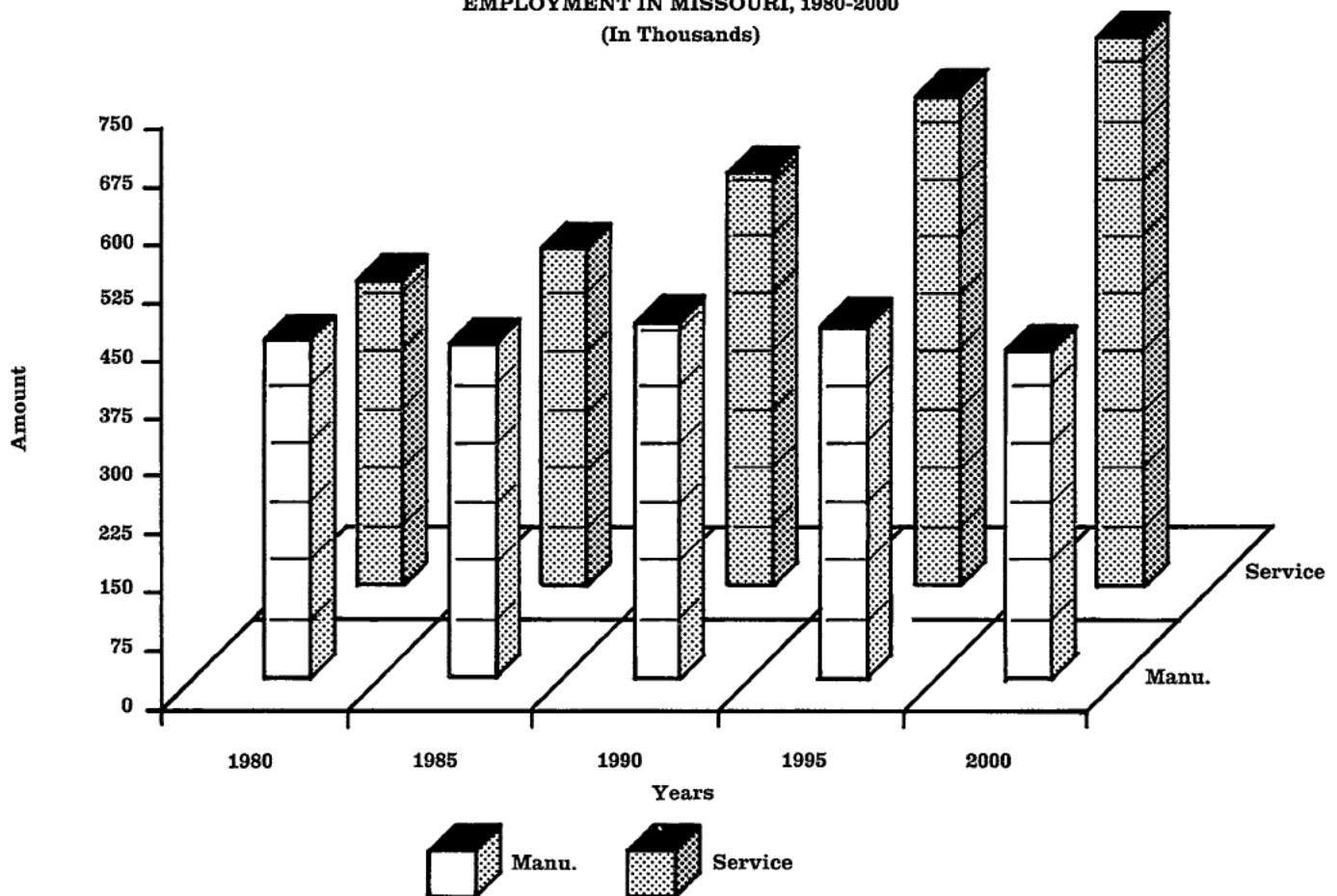
employment and the decline in manufacturing. During the hundred years prior to 1970, the decline in agricultural employment actually increased overall U.S. productivity. Agriculture traditionally has been a labor intensive industry and the amount of product produced by the average agricultural worker has been less "economically" valuable than that produced by the average manufacturing employee. This disparity in the value of their respective products followed from the positive contribution of capital goods to worker productivity, and thus to wages. Agri-

culture, with a low capital to labor ratio, initially yielded relatively low wages and agricultural workers migrated to higher paying, manufacturing jobs. Agriculture in turn began substituting capital for labor as workers departed for urban jobs and the national economy thus benefited in the long-term from increased productivity in both sectors.⁵

Workers continue to leave agriculture today, but a rapidly expanding manufacturing sector is not there to greet them. Instead, the evidence

FIGURE 3

GROWTH IN MANUFACTURING AND SERVICE
EMPLOYMENT IN MISSOURI, 1980-2000
(In Thousands)



Sources: Missouri Division of Budget and Planning and U.S. Bureau of Economic Analysis

indicates that low paid agricultural workers are increasingly becoming low-paid workers in service-sector or retail jobs. There they join dislocated, formerly high-paid blue collar workers from manufacturing, mining and construction for whom services and retail offer the readiest means of gainful employment.⁶

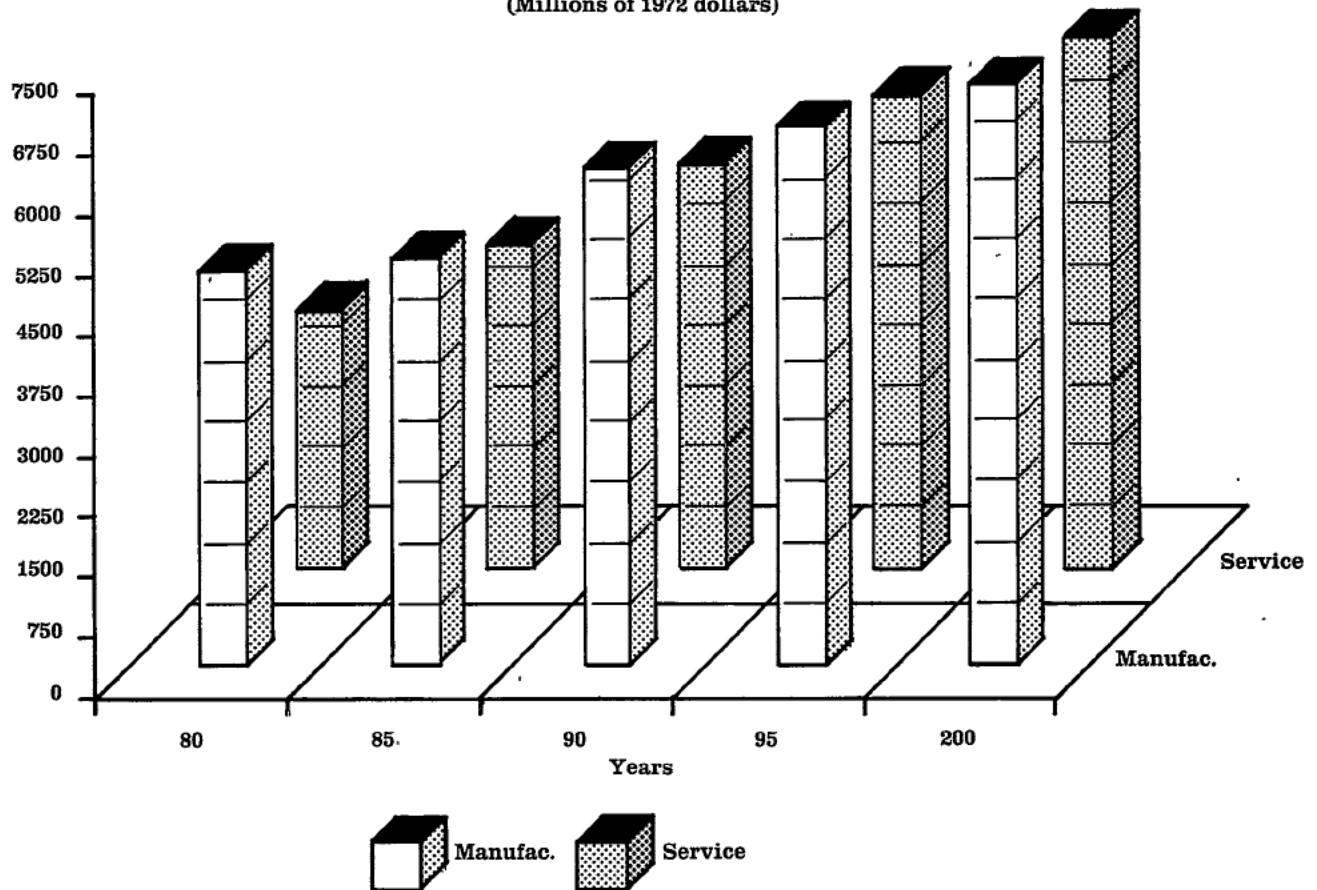
The number of persons employed in service jobs in Missouri is projected to increase by 82% between 1980 and 2000. While the real earnings of the entire service sector, according to this scenario, will increase 101% during the same

time period, the per worker earnings will increase only 15.7%. Figures 3 and 4 illustrate these increases.⁷

Manufacturing, on the other hand, is projected to experience a much different pattern of growth over the next 15 years: with real earnings of the entire sector increasing only 45%, and the number of persons employed falling 2.3%. Per capita earnings, on the other hand, should grow by 66.8% in the durable trades and by 30.9% in the non-durable manufacturing portion of this sector. Transportation and public utility companies,

FIGURE 4

**SERVICE AND MANUFACTURING EARNINGS
IN MISSOURI, 1980-2000
(Millions of 1972 dollars)**



Sources: U.S. Bureau of Economic Analysis and Missouri Division of Budget and Planning

which have always shared a similar pattern of development with manufacturing, also are expected to yield employment shares to services, the transportation, communication and utilities sector experiencing an employee earnings growth of 53% between 1980 and 2000, but growing in total employment by only 3%.

Should these projections prove accurate, middle income jobs would grow at a much slower pace than lower income jobs and we would see the middle class shrinking in relative size.⁸

The projections developed for this report indicate that the historical priority of manufacturing will be displaced not only by services, but also by rapidly growing retail and wholesale sectors. Table 1 shows the forecast change in ranking of the top five nonagricultural sectors between 1980 and 2000 according to their shares of total nonagricultural employment.

TABLE 1
RANKINGS OF THE TOP FIVE
NONAGRICULTURAL SECTORS BY
EMPLOYMENT IN MISSOURI
1980 AND 2000

Sector	Rank 1980	Rank 2000
Manufacturing	1	3
Service	2	1
Government	3	4
Retail	4	2
Transportation and Utilities	5	7*

*behind wholesale (#5) and finance, insurance and real estate (#6)

Table 1 strongly suggests a basic restructuring of economic activity in Missouri, a reordering consistent with projected changes in the sources of state personal income. The changes in employment growth in Table 1 are roughly paralleled by changes in earnings, or wages and salaries. It is, indeed, in the recomposition of earnings that a new, emerging structure would have its greatest effect.

The projected changes in Missouri's economic structure are reviewed in the next three sections.

Employment trends will be surveyed first, followed by predicted changes in earnings and in the relative cost of doing business in the state.

EMPLOYMENT TRENDS

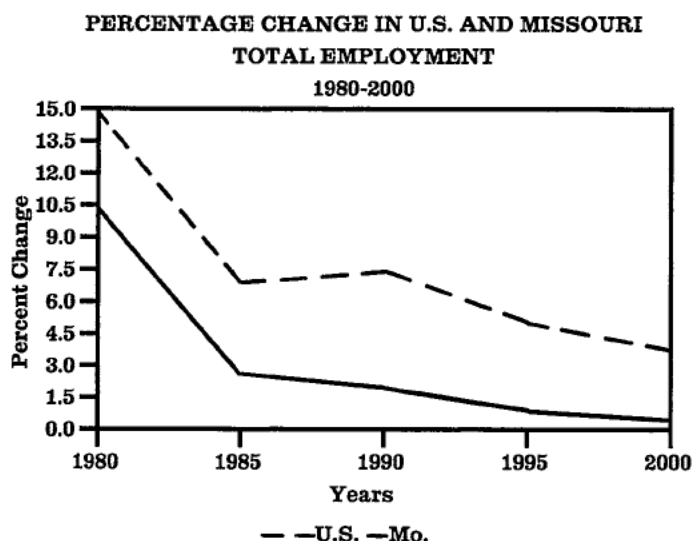
Changes over time in the number of persons employed in an industry provide a good perspective on that industry's economic prospects. This view is improved when employment developments in an industry or economic sector are examined in the context of changes in wages and salaries. A still better view is obtained when the changes in employment and earnings are expressed in terms of workers' annual earnings. One hopes by so refining the perspective to capture in some degree the extent to which employment and earnings developments reflect change in the use of machinery and capital and in the responsiveness of an industry or sector to market demand.

The terrain through which one must first pass, however, is employment. The types of employee skills which are in demand indicate business's response to consumer buying behavior, and at what levels those skills are employed supplies extremely useful data for assessing the shape of Missouri's economy over the next fifteen years.

In the broadest sense, the major characteristic of employment change over the 20 years between 1980 and 2000 is declining rates of growth. In Missouri, as in the United States generally, the preceding period, 1975 to 1980, registered a greater change in employment than is projected for any of the four periods under examination in this paper. Thereafter, the percentage growth in total employment declines precipitously: in Missouri projected rates of state employment growth drop from 2.76% between 1980 and 1985 to 0.7% between 1995 and 2000, compared with projected population growth rates for these periods of 2.28% and 2.12%; in the U.S., the comparable rates of employment growth are 6.96% from 1980 to 1985 and 4.05% from 1995 to 2000, while the nation's population is expected to grow 5.13% and 3.23% for these same periods.

This overall decline in the rates of total employment growth in part stems from the aging of the American population, or, what is nearly the same thing, the passage of the post-World War II

FIGURE 5

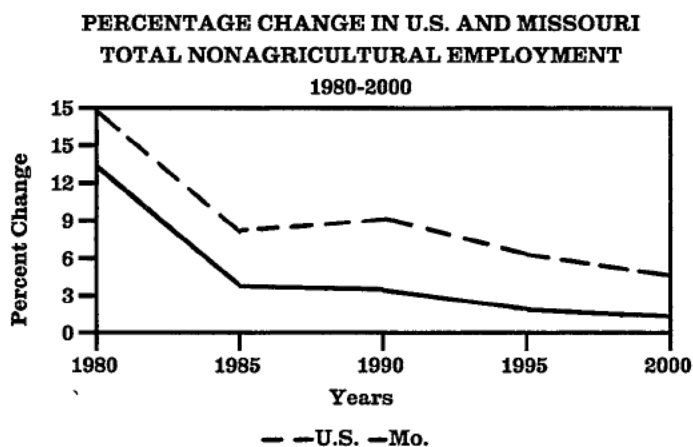


Sources: Missouri Division of Budget and Planning
and the National Planning Association

cohort out of the labor force. This demographic factor must be viewed as a major force depressing the U.S. change rates. Nevertheless, the rates of change are substantially lower in Missouri than in the U.S. over the period, and this difference suggests that factors in addition to the demographic ones are at work. These factors are discussed below.

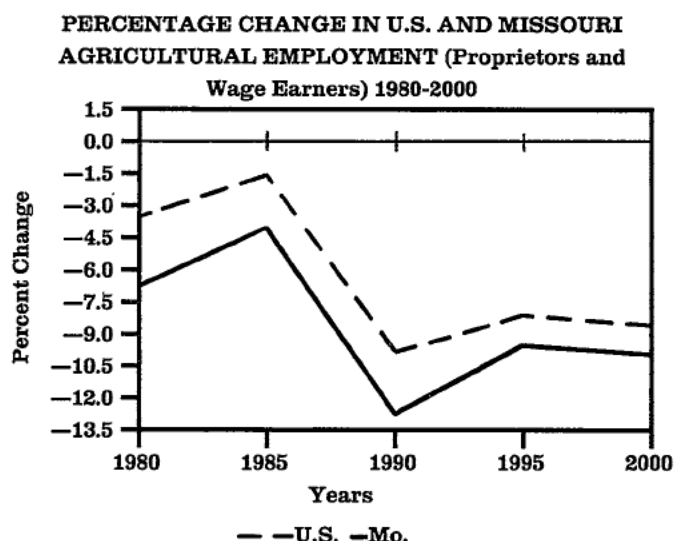
Another view of Missouri's relative change rates is provided when total employment is broken out into its two, principal components: agricultural and nonagricultural employment.

FIGURE 6



Sources: Missouri Division of Budget and Planning
and the National Planning Association

FIGURE 7



Sources: Missouri Division of Budget and Planning
and the National Planning Association

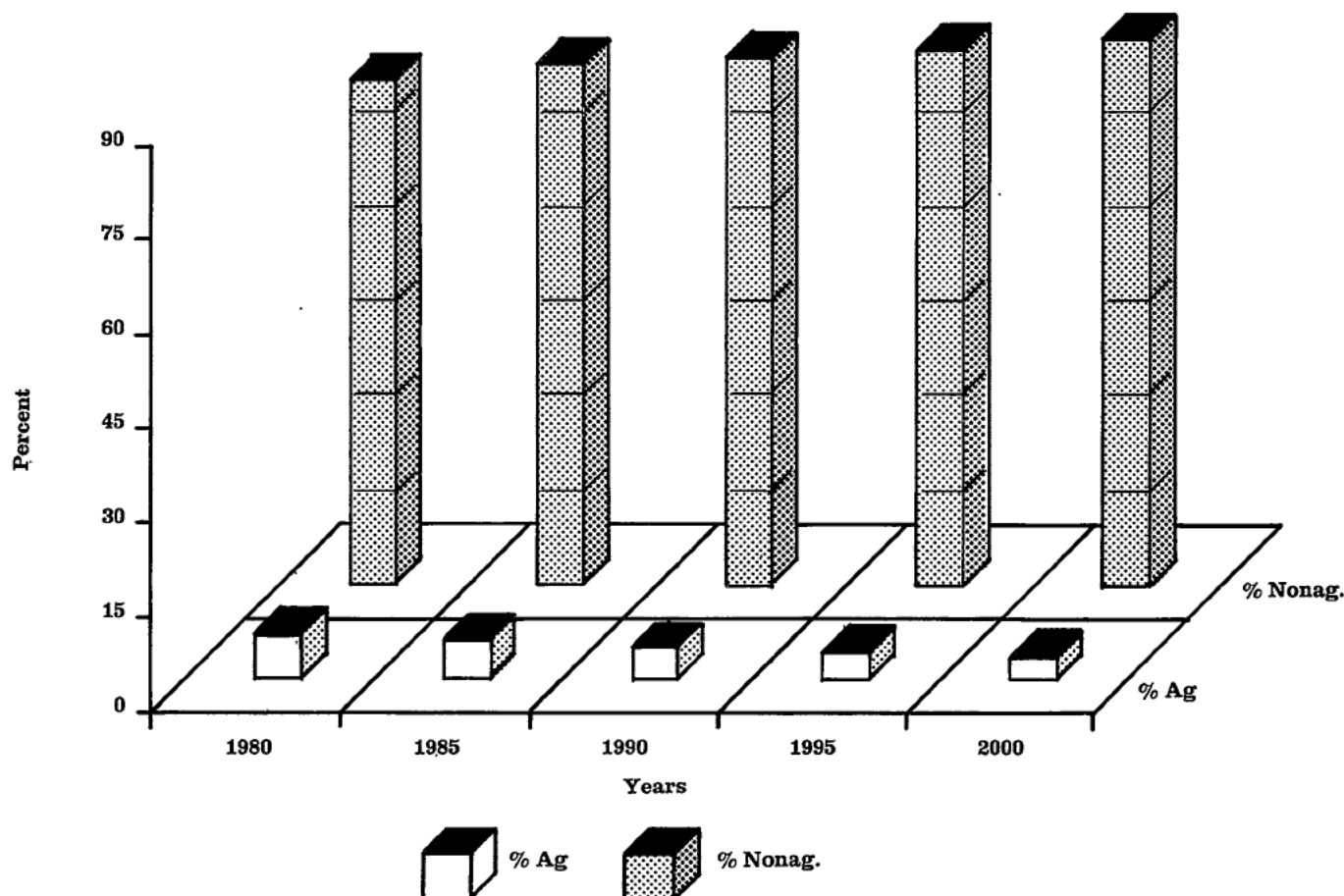
Nearly all working Missourians are "non-agricultural" employees. It is here that we find those who work in such diverse areas as agricultural services, mining, construction, durable and nondurable manufacturing, transportation, retail and wholesale trades, finance, services, and government. As Figure 6 shows, this large component of total employment is expected to change much like the nation as a whole over the period 1985 to 2000. The impact of the 1981-83 recession is clearly evident, as is also the strength of the recovery in Missouri.

Agricultural employment, on the other hand, has been in decline since the turn of the century, with only a scattering of growth years through 1985. No reversals in this long-run trend are expected before 2000. As Figure 7 demonstrates, however, the rates of reduction in Missouri's agricultural work force, while somewhat greater than those of the U.S., closely follow the national trend. In other words, the economic forces operating on agricultural nationally probably are those reducing the number of farmers in Missouri. Figure 8 shows the change in agricultural employment against that of nonagricultural employment, with both calculated as a percent of total employment.

A third component of total employment, non-farm proprietors, also merits review. This group is composed of men and women who work for

FIGURE 8

**AGRICULTURAL AND TOTAL NONAGRICULTURAL
EMPLOYMENT AS A PERCENT OF TOTAL EMPLOYMENT
1980-2000**



Sources: Division of Budget and Planning and U.S. Bureau of Economic Analysis

themselves and who, therefore, receive income principally from their own businesses. This group is the nearest approximation to the capitalist "adventurer" of any aggregation under examination. Unlike wage and salaried employees and the agricultural workforce, nonfarm proprietors face excellent prospects both in Missouri and the nation generally.

In 1975, there were 137,820 nonfarm proprietors and 152,310 farm proprietors. By 2000, projections show twice as many of the former than of the latter: 196,860 nonfarm proprietors and 90,370 farm proprietors. Table 2 shows significant gains for nonfarm proprietors: over the period 1980 to 2000 their real income will increase by 88% and their average annual earnings by 65%. The present tax advantages accruing to self-employment and the nonmonetary compensation commonly

associated with proprietorship, if monetized, would raise these change rates significantly.

TABLE 2

**PERCENTAGE CHANGE IN NONFARM
PROPRIETORS
1980-2000**

(All Percentages and Based on 1972 Dollars)^a

	Number		Income		Avg. Annual Earnings	
	Mo.	US	Mo.	US	Mo.	US
1980	18.04	22.89	-6.09	2.29	-20.45	-16.76
1985	19.09	21.61	25.15	20.03	5.09	-1.29
1990	-4.41	-2.16	13.85	15.30	19.10	17.85
1995	1.27	3.66	15.53	17.78	14.08	13.63
2000	-1.10	0.92	14.24	15.93	15.52	14.87
1980-00	14.02	24.46	88.07	88.98	65.07	51.84

The growth in Missouri nonfarm proprietors, however, is above the overall trend for all wage earners. Greater-than-national declines in agriculture coupled with overall slower rates of growth in nonagricultural employment are the rule, and these growth rates result in significantly slower change in total employment.

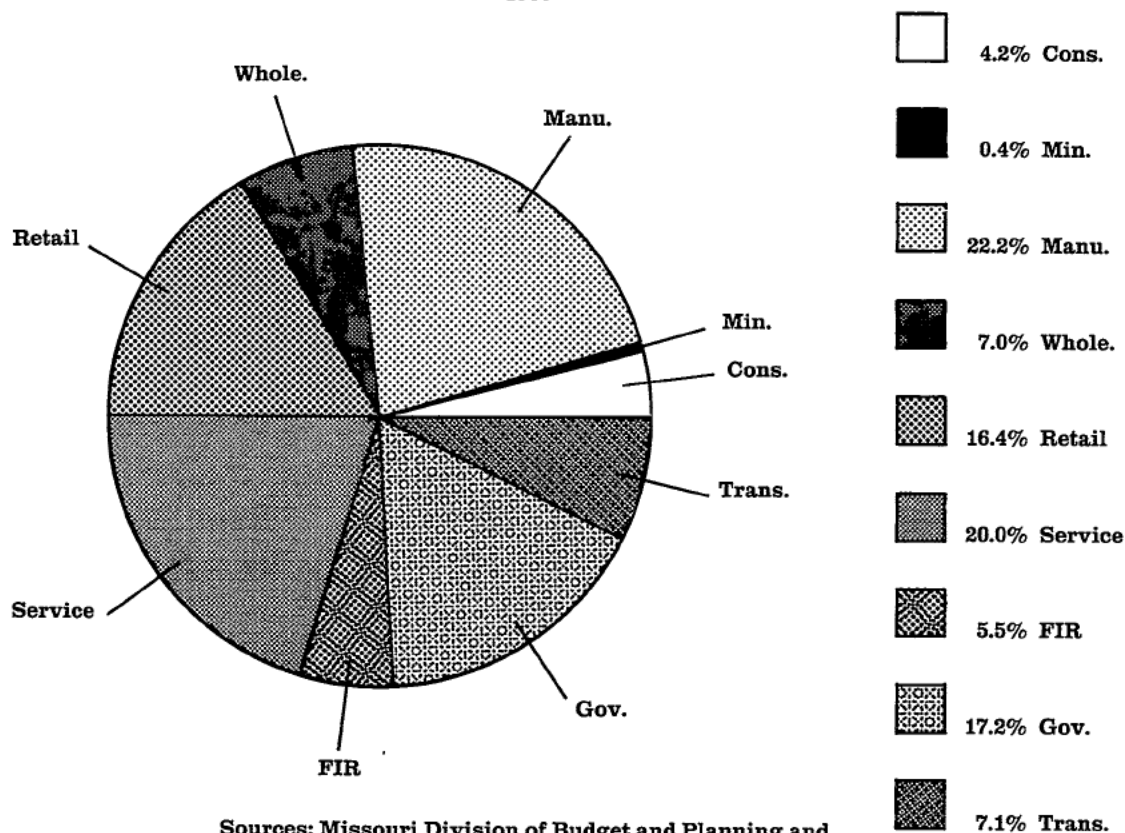
The projected movements in the principal Missouri employment aggregates do not necessarily signify a slowing of state economic activity. Economies with small employment changes may nevertheless be prosperous, depending on the types of economic activity that dominate. An economy with declining employment but growing, capital-intensive industry may be more prosperous than one exhibiting the opposite trends.

jected to decline. If we assume that demand for service, retail and wholesale employees will continue at levels somewhat near those in evidence today, then we can anticipate a subtle but important recomposition of the wage and salary labor force between 1980 and 2000, as shown in Figures 9 and 10. The largest gains are made by the service and retail sectors and the largest losses occur in the high capital-using manufacturing sector.

The service and retail sectors in 1980 accounted for a little over one-third (36.4%) of all Missouri wage and salary workers. By 2000, the two sectors are projected to employ nearly one-half (47%) of this group. Manufacturing, on the other hand, is projected to fall from 22.2% of the wage and

FIGURE 9

DISTRIBUTION OF NONAGRICULTURAL EMPLOYMENT IN MISSOURI
1980



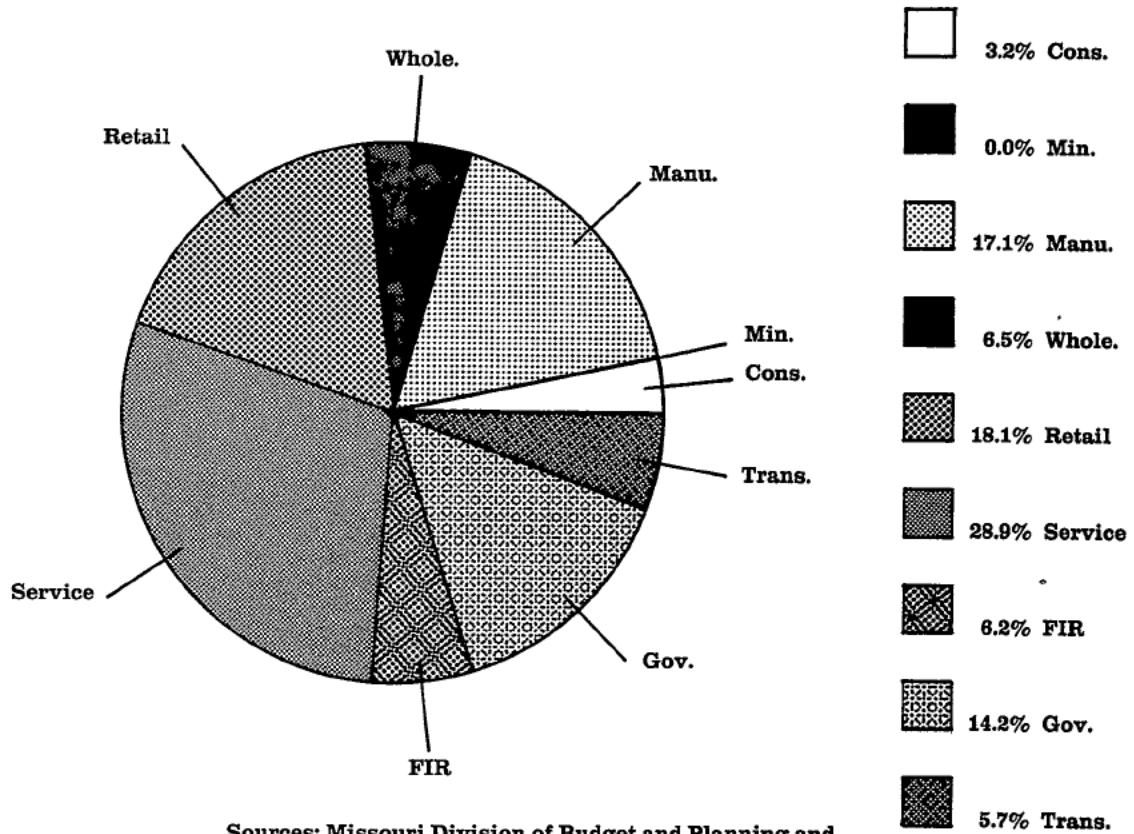
Sources: Missouri Division of Budget and Planning and
U.S. Bureau of Economic Analysis

However, a dramatic increase in the ratio of capital to labor most probably is not in Missouri's future, largely because the rate of demand for high capital using products and services is pro-

salary work force to 17.1%. When employment losses in construction, government and transportation, communication, and utilities (hereafter "transportation") are added to those of manu-

FIGURE 10

DISTRIBUTION OF NONAGRICULTURAL EMPLOYMENT IN MISSOURI
2000



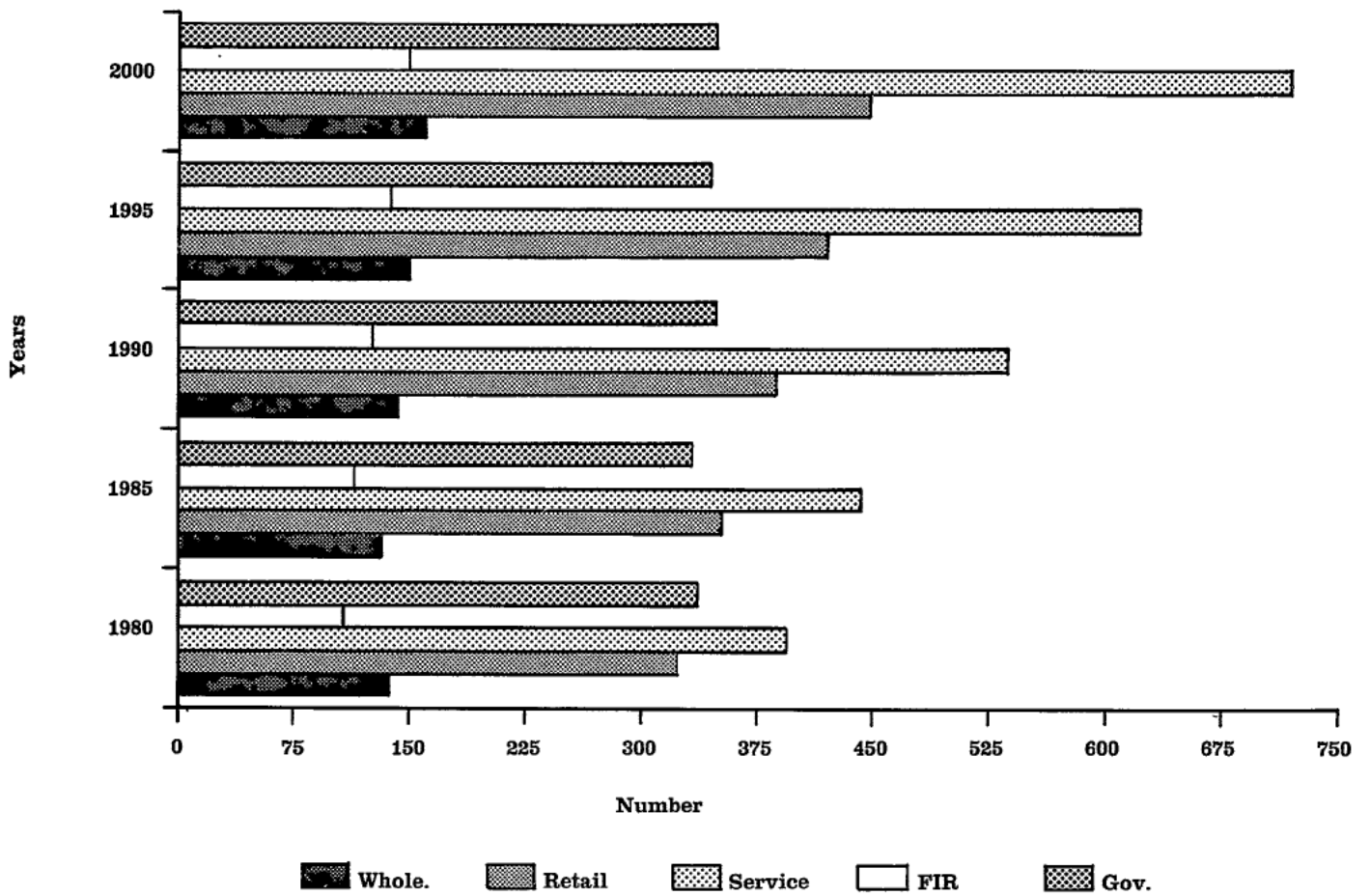
Sources: Missouri Division of Budget and Planning and
U.S. Bureau of Economic Analysis

facturing, their total employment loss of 10.5% nearly equals the 10.6% gain projected for the service and retail industries.

Numerical estimates of the jobs passing between these sectors are shown in Figures 11a and 12a.

FIGURE 11

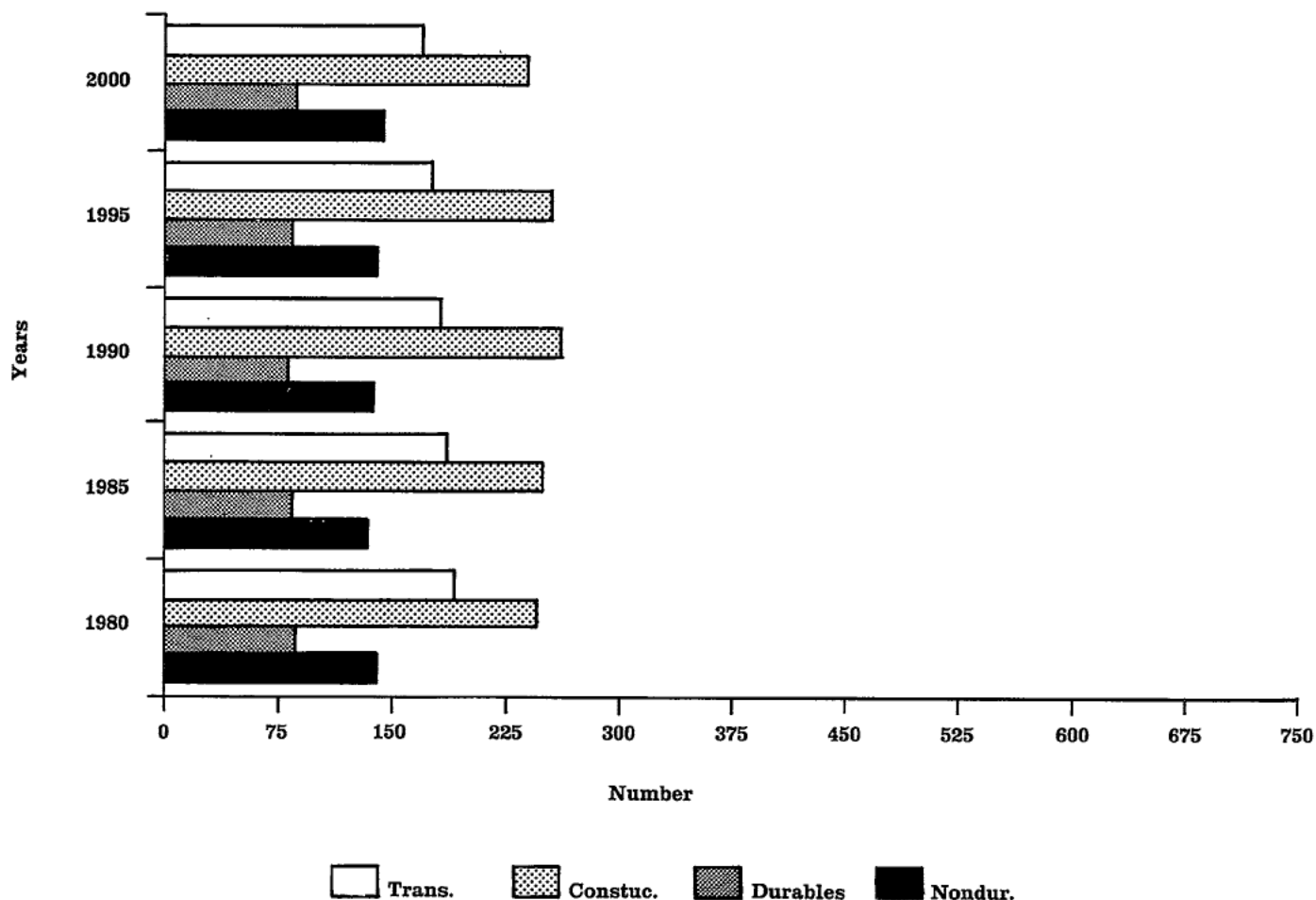
EMPLOYMENT GROWTH IN WHOLESALE & RETAIL, FIR, SERVICE AND GOVERNMENT
MISSOURI, 1980-2000 (In Thousands)



Sources: Missouri Division of Budget and Planning and U.S. Bureau of Economic Analysis

FIGURE 12

EMPLOYMENT GROWTH IN TRANSPORTATION CONSTRUCTION AND MANUFACTURING IN
MISSOURI, 1980-2000 (In Thousands)



Sources: Missouri Division of Budget and Planning and U.S. Bureau of Economic Analysis

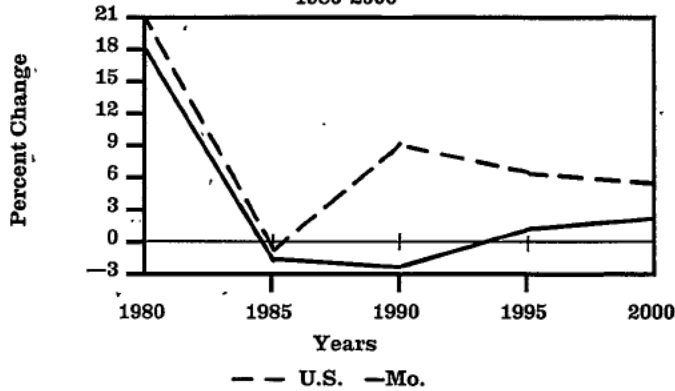
These two bar charts have been constructed on identical scales. The bars in Figure 12 labeled "Durables" and "Nondur." refer to the two components of the manufacturing sector. In Figure 3 above, these two components were combined to show the relationship between service and manufacturing employment growth. Clearly, the future of job growth in the state contains a very large role for those businesses in

which dealing with the needs of people is the principal objective.

Figures 13 through 23 compare Missouri with national projected change rates for each of eleven sectors from 1980 to 2000. Projected employment in the state's principal nonagricultural sectors generally follows trends at the national level, though there are significant exceptions.

FIGURE 13

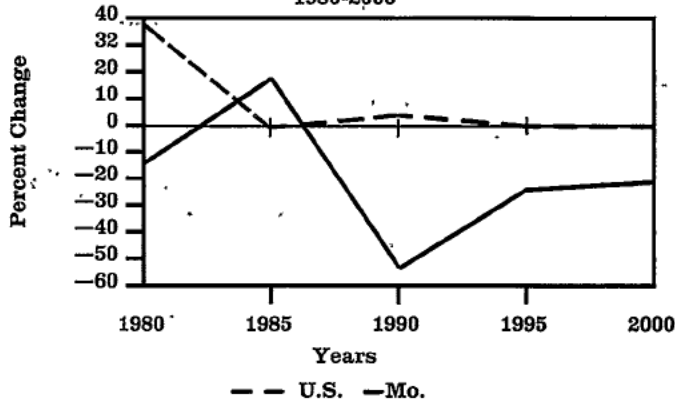
PERCENTAGE CHANGE IN U.S. AND MISSOURI
CONSTRUCTION EMPLOYMENT
1980-2000



Sources: Missouri Division of Budget and Planning and the National Planning Association

FIGURE 14

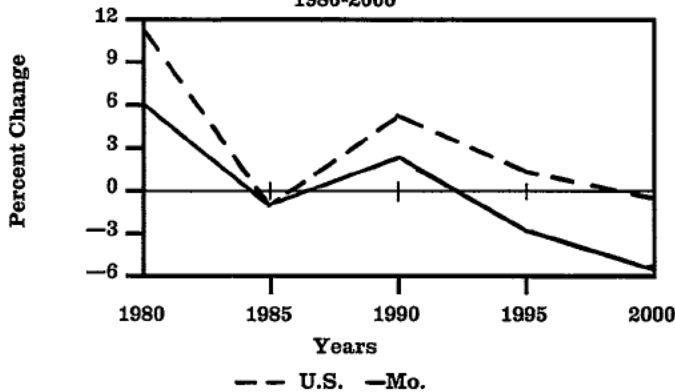
PERCENTAGE CHANGE IN U.S. AND MISSOURI
MINING EMPLOYMENT
1980-2000



Sources: Missouri Division of Budget and Planning and the National Planning Association

FIGURE 15

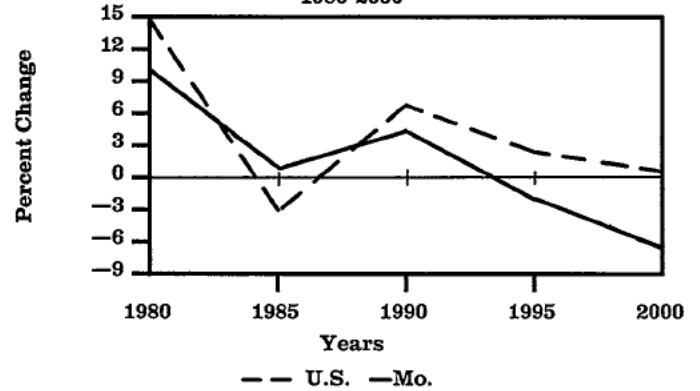
PERCENTAGE CHANGE IN U.S. AND MISSOURI
MANUFACTURING EMPLOYMENT
1980-2000



Sources: Missouri Division of Budget and Planning and the National Planning Association

FIGURE 16

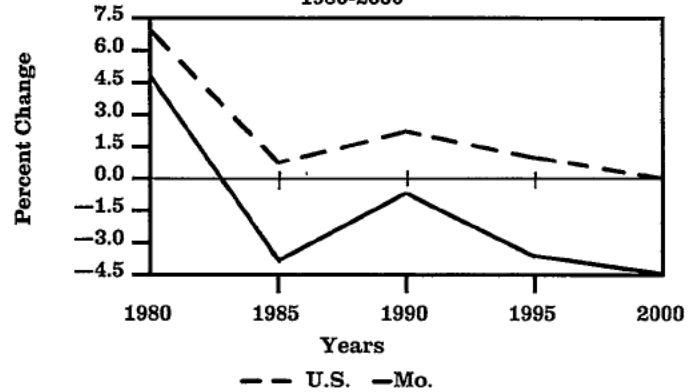
PERCENTAGE CHANGE IN U.S. AND MISSOURI
DURABLE MANUFACTURING EMPLOYMENT
1980-2000



Sources: Missouri Division of Budget and Planning and the National Planning Association

FIGURE 17

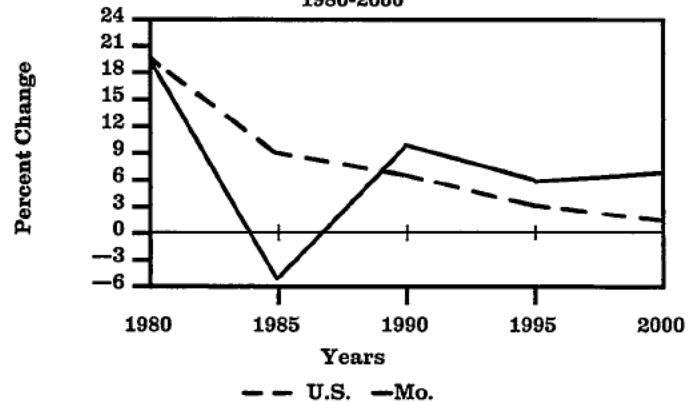
PERCENTAGE CHANGE IN U.S. AND MISSOURI
NONDURABLE MANUFACTURING EMPLOYMENT
1980-2000



Sources: Missouri Division of Budget and Planning and the National Planning Association

FIGURE 18

PERCENTAGE CHANGE IN U.S. AND MISSOURI
WHOLESALE TRADE EMPLOYMENT
1980-2000

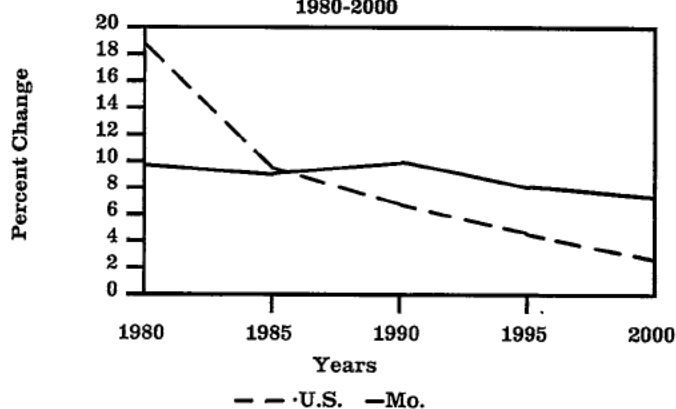


Sources: Missouri Division of Budget and Planning and the National Planning Association

FIGURE 19

PERCENTAGE CHANGE IN U.S. AND MISSOURI
RETAIL TRADE EMPLOYMENT

1980-2000

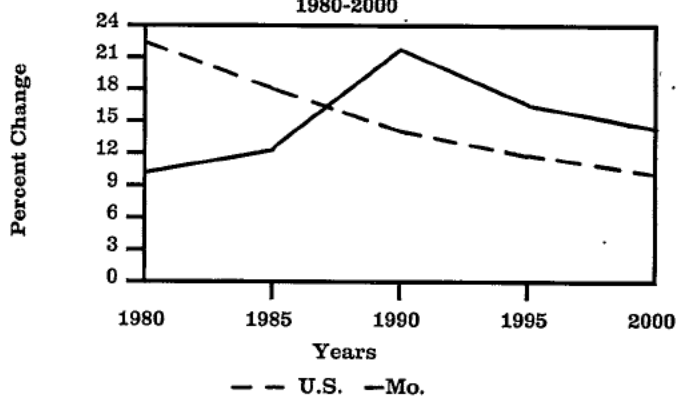


Sources: Missouri Division of Budget and Planning and
the National Planning Association

FIGURE 20

PERCENTAGE CHANGE IN U.S. AND MISSOURI
SERVICE SECTOR EMPLOYMENT

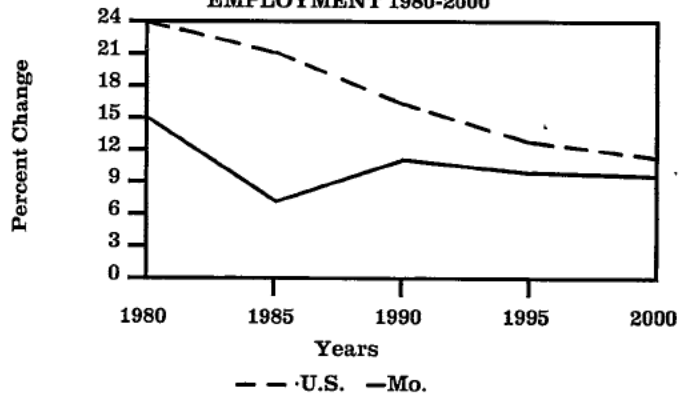
1980-2000



Sources: Missouri Division of Budget and Planning and
the National Planning Association

FIGURE 21

PERCENTAGE CHANGE IN U.S. AND MISSOURI
FINANCE, INSURANCE AND REAL ESTATE
EMPLOYMENT 1980-2000

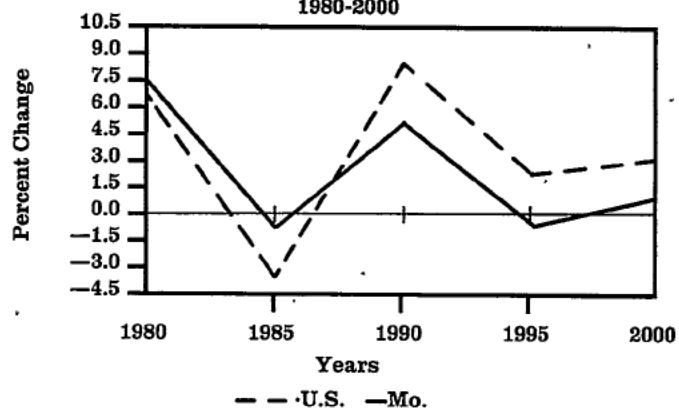


Sources: Missouri Division of Budget and Planning and
the National Planning Association

FIGURE 22

PERCENTAGE CHANGE IN U.S. AND MISSOURI
GOVERNMENT EMPLOYMENT

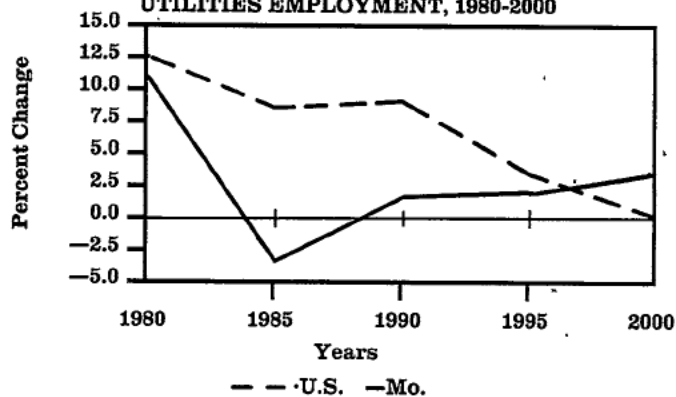
1980-2000



Sources: Missouri Division of Budget and Planning and
the National Planning Association

FIGURE 23

PERCENTAGE CHANGE IN U.S. AND MISSOURI
TRANSPORTATION, COMMUNICATION AND
UTILITIES EMPLOYMENT, 1980-2000



Sources: Missouri Division of Budget and Planning and
the National Planning Association

The Missouri construction sector, for example is predicted to diverge from the national trend between 1985 and 1990, in large part due to an expected reduction in Missouri housing starts during the late 1980s, but probably will end the 1990s near national growth rates.

Mining, on the other hand, is not expected to reverse a projected decline from 8,320 employed in 1980 to 2,350 in the year 2000.

Manufacturing, both of durable and nondurable goods, generally is expected to track the national pattern. The state contains a number of automobile assembly plants, automotive parts manufacturers, and chemical companies and numerous businesses engaged in the manufacture of clothing, shoes and hats. These firms probably will continue to feel the impact of foreign competition and the movement of Missouri businesses to the southern United States.

The wholesale, retail, and service sectors show the vigorous growth in the 1990s which will result in their combined dominance of the state economy by 2000. Each sector is expected to grow steadily in employment at rates above the national trend. The dip in wholesale trade between 1980 and 1985 (see Figure 18a) reflects that sector's considerable difficulties during the recent recession.

The prospects of the finance, insurance, and

real estate sector ("FIRE") also are good. This sector is especially sensitive to personal income growth and the expansion path as depicted in Figure 21 should be viewed as the minimal likely over the period. If personal income in Missouri grows at rates higher than those predicted, then this sector should achieve growth rates more in line with the national rates.

The steady growth in federal, state and local government employment, which had been a prominent feature of the Missouri employment picture during the 1970s and early 1980s, is projected to diminish somewhat over the next 15 years. The rate of change is expected to fall below the national trend by 1990 and to finish the decade about one percent behind the national rate. In this respect, government sector growth is in line with all of the other historically important economic sectors in losing ground to service and retail/wholesale expansion.

Finally, generally slower growth is expected for the transportation, communication and utilities sector. The national trend is decidedly downward, but reflects more the higher capital to labor ratio which this sector will enjoy in the 21st century than it does a decline in the economic importance of transportation, communication and utilities. Missouri should remain an important center of transportation and communication employment with an above-national growth rate in 2000, as Figure 23 shows.

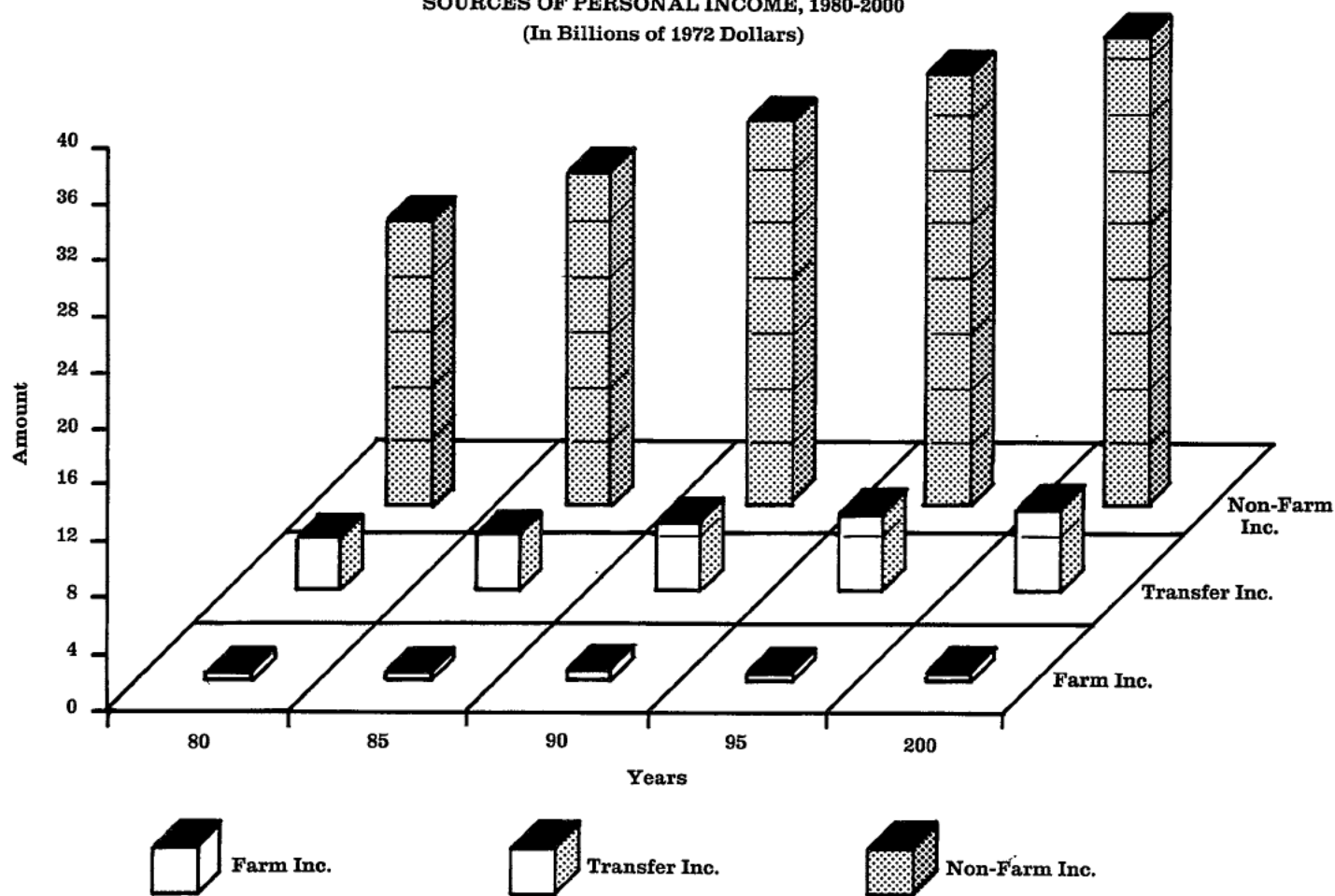
EARNINGS TRENDS

A review of forecasted developments in the income of Missourians generally describes the same structural changes apparent from forecast employment trends.

sectoral earnings trends in more detail, for each of ten sectors, from 1980 (Figure 25) to 2000 (Figure 26). It is quickly evident that the largest projected gain is for the service sector, which is forecast to increase its share of total state employment income from 17.1% to 22.7%. The

FIGURE 24

SOURCES OF PERSONAL INCOME, 1980-2000
(In Billions of 1972 Dollars)



Sources: U.S. Bureau of Economic Analysis and Missouri Division of Budget and Planning

As Figure 24 indicates, projections show the farming sector losing a small measure of its total, real income after 1990, while those who, as a group, receive transfer income would gain total, real income. The largest real income gains would accrue to the nonfarm category and, within that category, to nonfarm proprietors and the service and finance sectors.

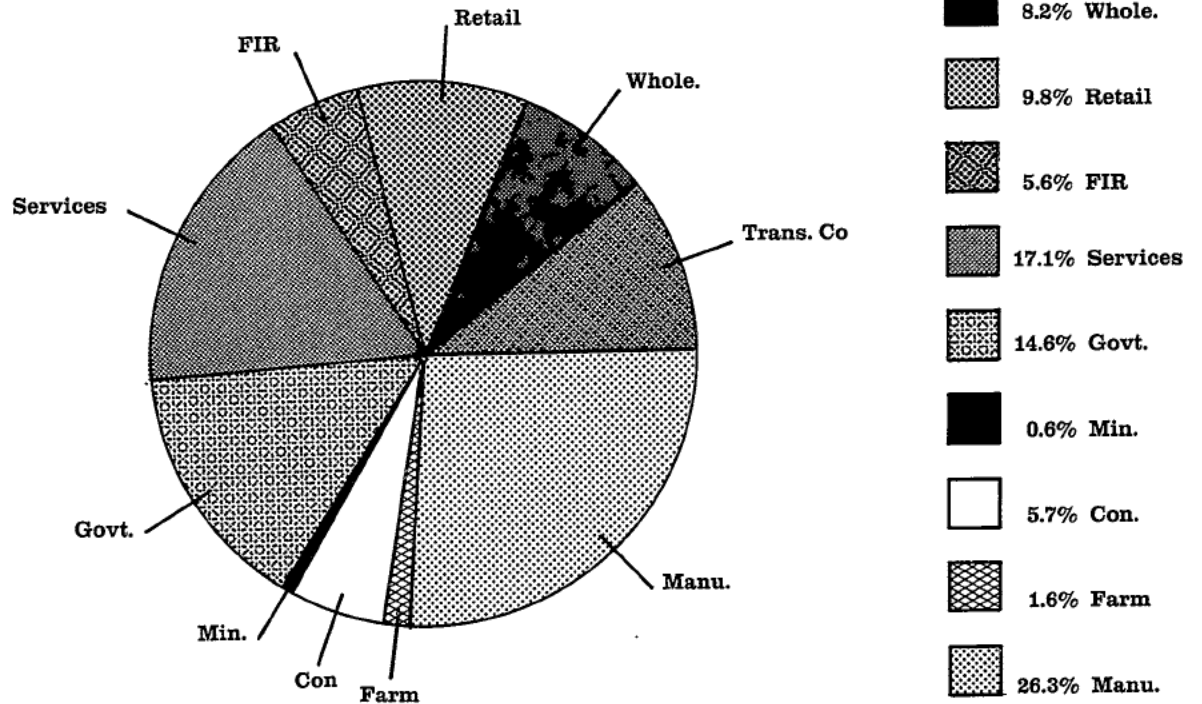
The pie charts of Figures 25 and 26 show

only other sector expected to increase its share is FIRE (finance): from 5.6% to 6.5%.

These changes in Missouri sectoral earnings in large measure reflect the direction of national changes: the growth in the share of total earnings for employees in service businesses and in finance, insurance and real estate firms is accompanied by falling shares of total earnings in all other sectors. The total earnings forecasts,

FIGURE 25

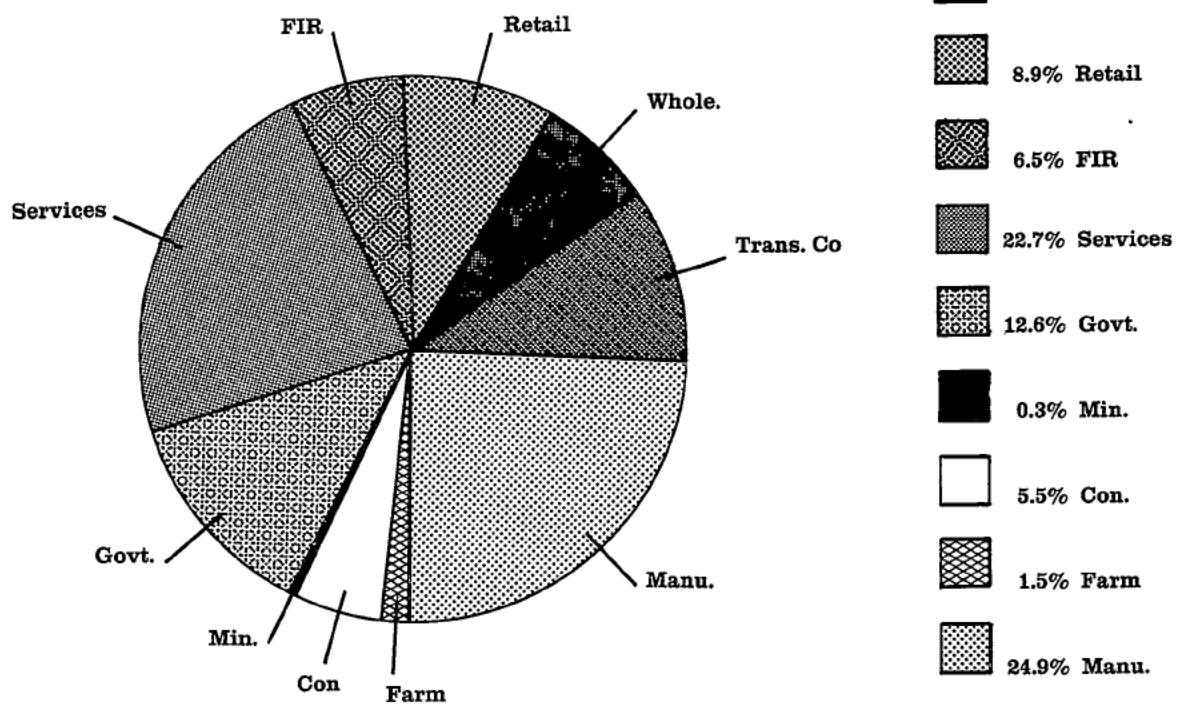
DISTRIBUTION OF EARNINGS BY SECTOR IN MISSOURI, 1980



Sources: U.S. Bureau of Economic Analysis and Missouri Division of Budget and Planning

FIGURE 26

DISTRIBUTION OF EARNINGS BY SECTOR IN MISSOURI, 2000



Sources: U.S. Bureau of Economic Analysis and Missouri Division of Budget and Planning

however, do not perfectly reflect the impact of economic changes on the average employees paycheck. If, for example, the percentage decrease in employment for a sector exceeds the percentage decrease in that sector's earnings share, then per employee earning actually will increase, all other things being equal. Of course, the reverse is true and per employee earnings will fall, if employment grows faster than earnings.

Many of the economic and social factors which qualify this simple relationship between earnings and employment have been included in the equations which stand behind Table 3. Each of the earnings and employment equations contain demographic and economic information which capture key changes in national and Missouri economic activity. For example, some of the increase in the wages of the average durables manufacturing employee by the year 2000 can be attributed to the declining number of such employees, but the largest percentage of their wage growth most probably will stem from the introduction of labor saving machines in factories. Substitution of machine for human labor is likely to raise labor productivity and enable employees to command higher pay.

Table 3 contains some surprises in light of the predicted employment growth in services, the retail and wholesale trades, and in the finance, insurance and real estate sector. While the job growth in services is forecast to outstrip the rate of job formation in any other sector, service employees likely will lose rank in average employee pay in Missouri. The average annual pay for Missouri service employees gave that sector a rank of 7 in 1980, \$1,200 above the national average of \$16,300. By 2000, however, average annual service earnings are projected to be approximately \$200 below the national average and to rank 8th in Missouri sector pay. Employees in the retail trades are expected to keep pace with the national trend and to maintain their Missouri sector pay rank. Missouri wholesale trades workers are forecast to lose rank as well as fall below the national growth pattern. Those Missourians employed in finance, insurance, and real estate are shown to experience a growth in annual average earnings above the national trend in that sector and to maintain rank as sixth among the state nonagricultural sectors.

TABLE 3
PER EMPLOYEE NOMINAL, ANNUAL
EARNINGS BY SECTOR
1980-2000¹⁰

Sector		1980 Rank	Earnings in 1980	2000 Rank	Earnings in 2000	Percentage Change 1980-2000
Transportation						
Comm. & Utils.	US	1	\$27,300	1	\$75,000	174.7
	MO	1	30,700	1	73,900	140.7
Construction	US	2	27,000	3	69,800	158.5
	MO	2	28,300	3	70,300	148.4
Durables Mfg.	US	3	26,900	2	71,900	167.3
	MO	3	26,400	2	70,500	167.0
Wholesale Trade	US	4	24,400	5	51,600	111.5
	MO	4	23,900	5	50,600	111.7
Nondurable Mfg.	US	5	22,400	4	52,400	133.9
	MO	5	21,800	4	50,600	132.1
Finance, Insur. and Real Estate	US	6	21,200	6	47,000	121.7
	MO	6	21,000	6	48,300	130.0
Government	US	7	17,400	7	42,700	145.4
	MO	8	17,500	7	40,300	130.3
Services	US	8	16,300	8	37,000	126.9
	MO	7	17,500	8	36,800	110.3
Retail Trades	US	9	11,700	9	23,800	103.4
	MO	9	12,300	9	24,900	102.4

In three sectors the average annual pay is expected to grow fast enough to raise their 1980 rankings by 2000. Missouri workers in durable manufacturing, nondurable manufacturing, and government are expected to gain in state ranking; of those three sectors only durable manufacturing is expected to grow in annual pay at the national rate. The improvement in rank for nondurable manufacturing and government workers most probably will result from the same type of machine-for-human labor substitution which is expected to raise durables manufacturing wages. Greater per worker productivity in government may stem from the expanded role which computers should have in future provision of governmental services.

The two remaining groups — the construction sector and the transportation, communication,

and utilities sector — do not clearly fit into either the inclining or declining categories. While it appears that construction workers will lose rank to durables manufacturing employees by 2000, their projected average annual pay is so close to durables as to be indistinguishable, and their 20-year growth rate is second only to durables and close to the national trend. By 2000 the average annual earnings of Missouri construction employees are forecast to remain above the national average. No so, however, with employees in the transportation, communication, and utilities sector. These Missouri employees were earning 21% more than the national average in 1980, but they may be earning about 1.5% less than the national average by 2000. This relatively sharp reversal in trend is based on an extrapolation of current decreases in communication employment in the Midwest — decreases which have resulted from a slow exodus of communication firms to the South and West.

These growth rates in per employee earnings help explain trends discussed earlier in this report in projected total and per capita real income for Missouri. Those projections indicated that per capita real income growth in Missouri would not keep pace with the U.S. trend. Per employee earnings trends point to one of the major reasons for this disparity between state and national growth in personal income: the Missouri sectors which are projected to grow most in employment are the very ones which are forecast to grow least in per employee pay.¹¹

IMPLICATIONS OF ECONOMIC TRENDS

The period 1980 to 2000 probably will encompass a significant change in the way many Missourians make their living and, more importantly, in the purchasing power which their labor will give them over goods and services. Manufacturing, for example, is projected to decline by 2.3% in total employment, but average nominal wages for durable and nondurable manufacturing employees may grow by 151% for those employed in that sector. In contrast, the "people" businesses — service, finance, wholesale and retail trades — are projected to gain 82% in employment, even though the growth in nominal wages is expected to grow by about 110%. These are only two of the trends which emerge from the analysis reported in this paper.

The projections attempted in this report necessarily are subject to the constraint inherent in forecasting trends in highly dynamic national and regional economies. Many projected trends appear adverse and may be disquieting, among them signs of a significant move towards relatively low-wage, service-sector employment. A number of the uncovered trends, however, appear encouraging, not least a projected favorable climate for business investment and job creation.

Missouri historically presented business investors and managers with a relatively low cost of doing business, reflecting energy, wage, capital and tax costs below both national and regional averages. Forecasts to the year 2000 call for this trend to continue, as indicated in Figure 27.

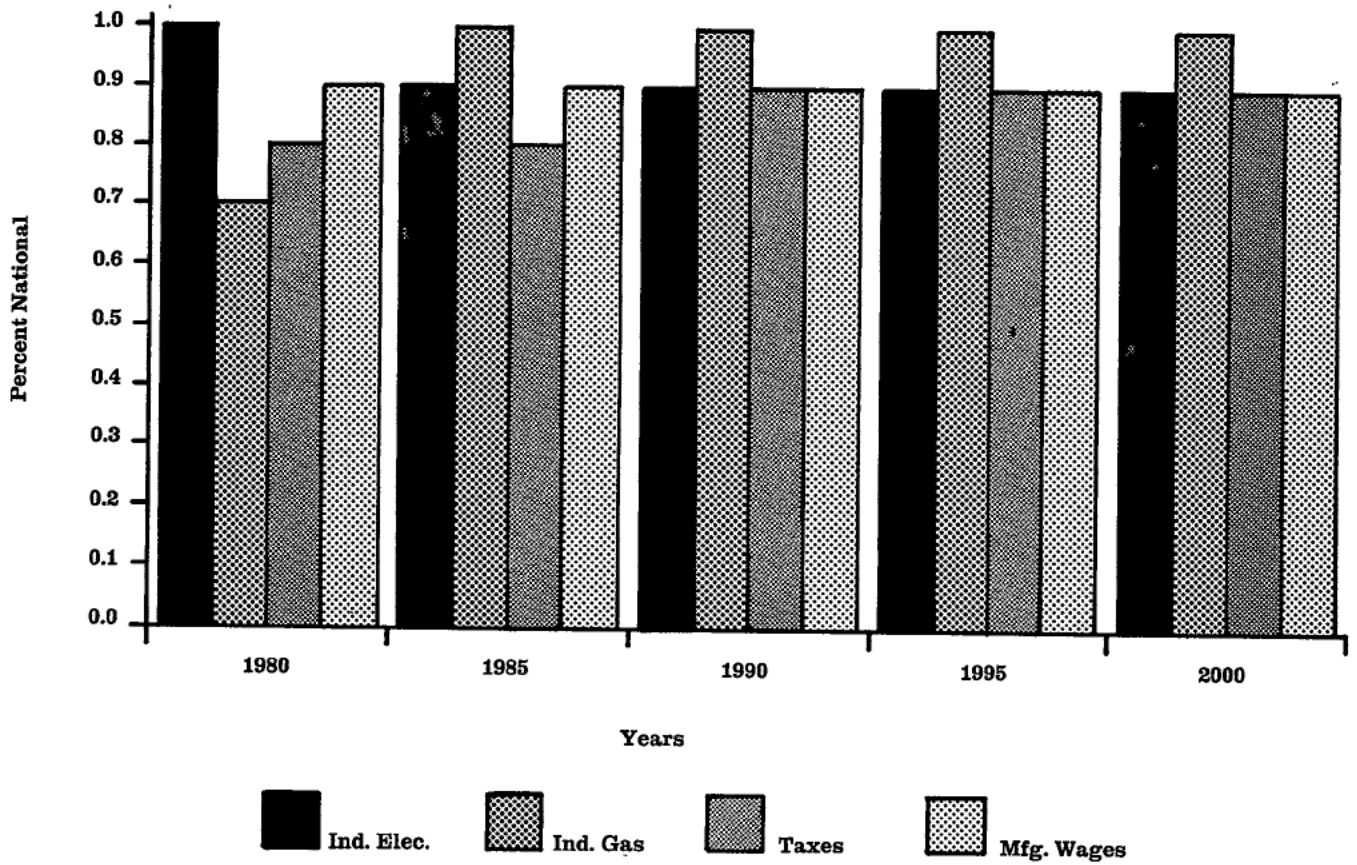
Figure 27 shows the projected Missouri costs of industrial electrical power, industrial natural gas, state and local taxes, and manufacturing wages in Missouri as a percent of the national costs. Natural gas is projected to rise from 70% of the national average cost in 1980 to 100% by 2000. State and local taxes are shown rising from 80% of the national average to 90%. Electrical power used by industry is shown falling from 100% of the national average cost in 1980 to 90% for the period 1985 through 2000. The wage bill usually is the single highest and most variable cost of doing business. Figure 27 indicates that Missouri manufacturing wages are projected to remain at 90% of the national level throughout the twenty-year forecast period.

Considerably more analysis would be necessary to assess the probability that the trends projected here will come to pass. Demographic variables, developments within the national and international economies, intangibles like entrepreneurial spirit and many other factors ultimately will determine the future of the Missouri economy.

This profile opened with observations on the strong foundations historically supporting the Missouri economy. The current period unquestionably is one of significant economic change, but it is important to note that a solid basis endures for continued growth and prosperity. The Missouri economy is large and reflects a healthy diversity. Our population contains a growing, urban population and a skilled and well-educated work force. The natural resource base and

FIGURE 27

THE RELATIVE COST OF DOING BUSINESS IN MISSOURI, 1980-2000
(U.S. = 1.00)



Source: Chase Econometrics

infrastructure system are strong. Our agricultural sector is moving toward resolution of its severe downturn of the mid-1980s. All

these factors are important ingredients for a Missouri of opportunity and prosperity in the year 2000.

NOTES

¹The following variables were used in estimating sector employment and income change: nominal and constant (or "real") personal income in Missouri and the United States, housing starts in Missouri and the United States, new car purchases in Missouri and the United States, the federal funds rate, the prime interest rate, real and nominal gross national product, Missouri population, and Missouri and United States total employment.

²See, for example, Lester C. Thurow, *The Zero-Sum Solution: Building a World-Class American Economy* (New York: Simon and Schuster, 1985); and Otto Eckstein, et al., *The DRI Report on U.S. Manufacturing Industries* (Data Resources, Inc., 1984).

³See, among others, Robert A. Lawrence, *Can America Compete?* (Washington, D.C.: Brookings, 1984).

⁴It is quite common in the peculiar language of economics to speak about a person's or community's real as opposed to nominal command over goods and services. The meaning of the terms "real" and "nominal", while apparently obscure, actually is quite straightforward. If an economy, for example, experiences an inflation rate of 10% each year for 10 years, it might appear to some that everyone is better off at the end of that 10 years than before. After all, wages have risen 160%. Suppose, however, that this nominal increase of 160% was due to automatic wage increases intended to keep the workers even with increases in retail prices, and that the nominal increase was not caused by the workers' greater productivity. If that is the case, then it is clear that the worker can buy no more goods or services at the end of the 10 years than he or she could at the beginning. In other words, once the wages are reduced by the amount of inflation, one finds that the real or underlying wage has not changed and that the workers' command over goods and services or their purchasing power is no greater than before.

If all incomes were equally affected by price changes, then there would be little reason to draw the distinction between real and nominal: everyone would have the same real purchasing power after inflation was mathematically sub-

tracted. Modern economies, however, never enjoy that equality of effect. Consumers generally try to get the most for their dollar, even during periods of time when the consumer's nominal income is rising rapidly. Thus, consumers frequently substitute a highly priced automobile for a lower-priced, perhaps smaller vehicle, arguing that a car is a car, within reason. Those companies that manufacture the lower-priced car produce more cars per worker after the inflation begins than before, whereas the manufacturers of the higher-priced cars produce less. Consumers buy less beef and more chicken, fewer American shoes and more Korean, less steel and more aluminum. In each case, the real wages of those workers to whom consumers are turning for cheaper products will increase, their own command over goods and services will grow, and their increased economic stature in the labor force will, to some degree, be at the expense of those employed in goods and services production from which consumers are turning away.

⁵For an illustrative exposition of this sectoral shift, see Thurow, *Zero-Sum Solution*: pages 73-4.

⁶Eckstein, *DRI Report on U.S. Manufacturing*: pages 9-24.

⁷The sources for those and other projections contained in the profile are identified in the lower-left hand corner of the Figures. Where the attribution is to "Missouri Division of Budget and Planning", the estimates were based largely on original data compiled by the Division.

⁸See, Bureau of the Census, *Money Income and Poverty Status of Families and Persons in the United States, 1983*; and *Current Population Reports, Consumer Income* for the years 1967 to 1977.

⁹Data from the Department of Commerce, Bureau of Economic Analysis, 1985 OBERs, *BEA Regional Projections*, v. 1: State Projections to 2035 (Washington, D.C.: 1985).

¹⁰The sources for Table 3 are projections made by Missouri Division of Budget and Planning *BEA Regional Projections*.

¹¹The decline in overall per capita income noted at the beginning of this report (see Figures 1 and 2) may appear to be at variance with the forecast of per employee earnings near the national trend. This disparity, however, is due to the growing

difference between household income and income reported by place of employment. As Missouri's population ages, the overall rate of income growth (or, the household income) expands at a rate much slower than the national rate.

RURAL MISSOURI IN TRANSITION

Rural Missouri Before Transition

Rural Missouri entered the current structural transition period during the early 1970's when federal government agricultural policy encouraged farmers to produce "fence row to fence row". Of course, policy was not the only impetus behind the structural change. Improved transportation systems, changing world markets, changing inflation and interest rates and overall economic performance were also contributing factors. Prior to the early 1970's and following World War II, the structure of rural Missouri did not change significantly. By far the greatest numbers of farms were represented by the "medium sized" units. These producers were highly diversified and fairly independent of outside incomes. As depicted in Table 1, in 1950 farms with value of products sold, from \$250 to \$5,999, comprised 71% of the total number of farms in Missouri. The distribution of farms was such that the extremes in size, small and large, were the exception. This type of agriculture was well adapted to the traditional rural structure. Rural towns, though possibly small in size, still provided full service; banks, agribusiness, groceries, clothing, general consumer goods such as automobiles and appliances. These towns were the economic and social center for most rural residents. Limited transportation and communications systems enhanced and maintained the compatibility of this rather closed town-rural relationship.

During this time period there existed a rather clear division of rural economic specialization

and well being between North and South Missouri. North Missouri's rural economy was dominated by livestock and grain enterprises with a switch in emphasis toward more intensive grain during the 1970's and 1980's (Figure 1).

Southern Missouri remained a more diversified area with greater emphasis on livestock and dairy. These lower capital intensive enterprises were more flexible and adaptable to changing economic conditions. Yet, at that time, Southern Missouri's rural economy was almost perceived to be a poverty pocket of the state. At the same time, recreation and tourism was expanding in importance. Northern Missouri was viewed to be much more economically healthy because of less marginal quality land and concentration on grain production. Concurrently, counties to the south of the Missouri River were developing cottage industries and recreation was expanding in scope; both in number of months per year in operation and people employed. In other words, Southern Missouri was, out of necessity, beginning to undergo a structural transition before the northern area. More and more farms in the south were supplementing farm income with income from small cottage and recreational industries. The transition in Southern Missouri was, and is, not without pain. Dependence on local businesses within local communities declined, while in the north, community dependence on small towns was dominant. Farmers in the north could purchase their inputs and consumer goods and market their products within the local area. Consumers and agribusinesses flourished. Soon this was to change.

TABLE 1

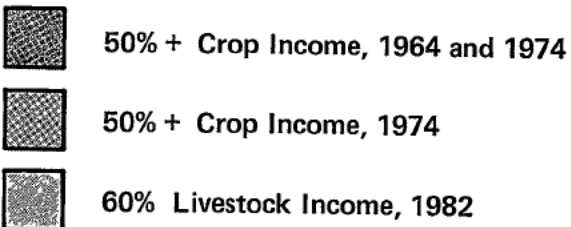
**NUMBER OF FARMS BY VALUE OF PRODUCTS SOLD
1950 AND 1982**

1950			1982		
Value of Products Sold	Number of Farms	%	Value of Products Sold	Number of Farms	%
0	11,668	5%	under \$5,000	43,543	39%
\$1-\$249	24,682	11%	\$5,000-\$9,000	17,693	16%
\$250-\$1,000	52,231	23%	\$10,000-\$14,999	9,574	9%
\$1,000-\$2,499	57,821	25%	\$15,000-\$29,999	13,913	12%
\$2,500-\$5,999	53,963	23%	\$30,000-\$49,999	8,566	8%
\$6,000-\$9,999	17,386	8%	\$50,000-\$99,999	10,004	9%
over \$10,000	12,294	5%	\$100,000 +	9,126	8%

**PERCENTAGE OF TOTAL VALUE OF FARM PRODUCTS
SOLD BY FARM CLASSIFICATION
1982**

Value of Products Sold	Percentage of farms	Percentage of total value of products sold
under \$5,000	39%	1%
\$5,000-\$9,999	16%	4%
\$10,000-\$14,999	9%	3%
\$15,000-\$29,999	12%	8%
\$30,00-\$49,999	8%	9%
\$50,000-\$99,999	9%	20%
over \$100,000	8%	54%

PERCENTAGE OF INCOME
DERIVED FROM CROPS AND LIVESTOCK
BY COUNTY



Rural Missouri Today

Missouri's current and changing rural structure directly reflects the impact of federal agricultural policy of the 1970's, e.g. fence row to fence row incentives, improved transportation and communications systems, internalization of agriculture and volatile inflation and interest rates. The medium sized diversified family farm that relied primarily on the farm income was leaving the scene. In its place came the part-time/hobby producer and large commercial farming operation. The relative size and number of farmers changed from the bell-shaped distribution depicted in Table 1, to a stratified system of larger numbers of small producers and dominating position of large commercial operations (Figure 2). These larger commercial operations (over \$50,000 in sales) accounted for 74% of the value of farm products sold in 1982. The transition from the late 1960's found an increasing number of traditional medium-sized farmers working off the farm with similarly increasing numbers of urban dwellers wanting to own land and live "the good life". Therefore, between 1950 and 1982, a significant increase in the number of part-time/hobby farmers occurred.

During this same time period producers intending to remain full-time farmers became larger and more specialized. Much of the expansion took place in a time of high inflation and interest rates, the perilous results of which are still being felt today. The larger commercial producers of North Missouri became more specialized in corn, soybeans, and wheat, de-emphasizing cattle enterprises. Figure 3 depicts the decreased emphasis of cattle production predominately in the Bootheel and Northern Missouri areas. In Southern Missouri, full-time farmers specialized more in dairy and poultry, while the part-time/hobby producers looked more to beef enterprises.

As Northern Missouri increasingly specialized in grain production, the U.S. economic and world trade environment was changing, such that the more highly specialized grain units became less profitable. These producers found their asset base eroding due to falling land prices and their com-

petitiveness declining as a result of stiffer world competition, poor policy decisions (the grain embargo) and marginal productivity of land.

The larger, more specialized producers of Northern Missouri began buying and marketing in the larger regional centers while bypassing traditional smaller local market supply sources and market outlets. As a result of declining incomes and restructuring of purchasing and marketing patterns, towns began to suffer. Traditional firms supplying consumer and producer goods began to close or cut back in size of operations. Many of these towns became retirement centers as older farm producers left the farm. In addition, the towns were no longer self-sufficient. The rural community was bypassing the town for socioeconomic needs.

In Southern Missouri, growth of recreation and small industrial production provided employment and supplement to rural income. While some small towns in Southern Missouri suffered, small industries and recreation lessened the economic impact of a changing agriculture.

One exception to the general structure trend in Southern Missouri is the Bootheel. This area more closely parallels the transition stage in North Missouri with primary agricultural income derived from soybeans, grain, and cotton. The socioeconomic changes in the Bootheel are similar to those in Northern Missouri. As far as farm structure is concerned, however, there are proportionally a greater number of full-time commercial farmers and, in general, larger farms than in North Missouri, while the part-time/hobby farmer are fewer in number proportional to acreage. Like Northern Missouri, the Bootheel has not been able to adjust to the changing agricultural structure in their area through the development of alternative economic activities.

In general, the Ozark plateau is further along in the transition from traditional agricultural industry domination to one of diversified economic activity and, therefore, would appear to be more economically healthy today than the traditional agricultural production areas north of the Missouri River and in the Bootheel.

FIGURE 2
DISTRIBUTION OF MISSOURI FARMS
AND SALES OF FARM PRODUCTS
1982

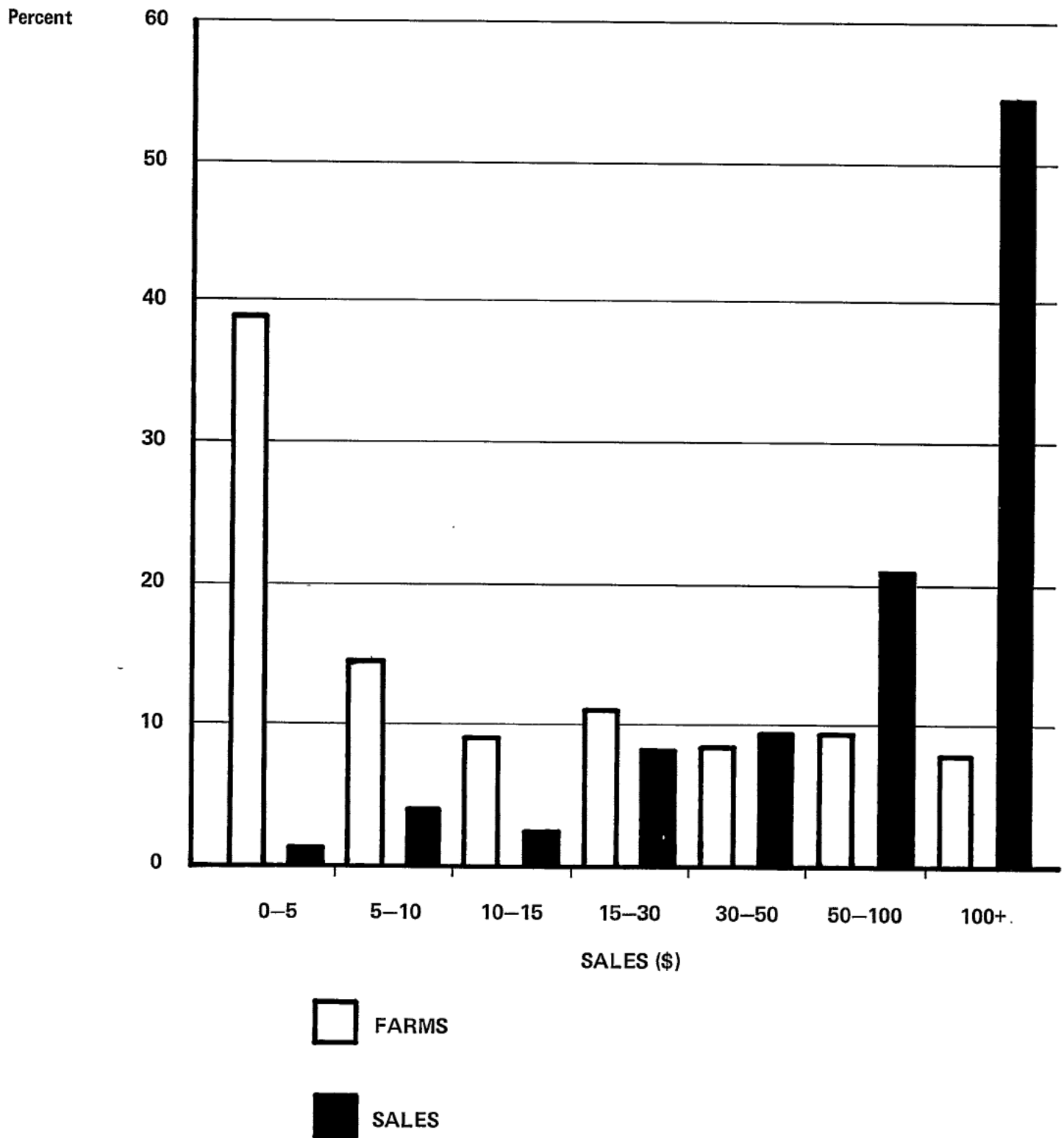
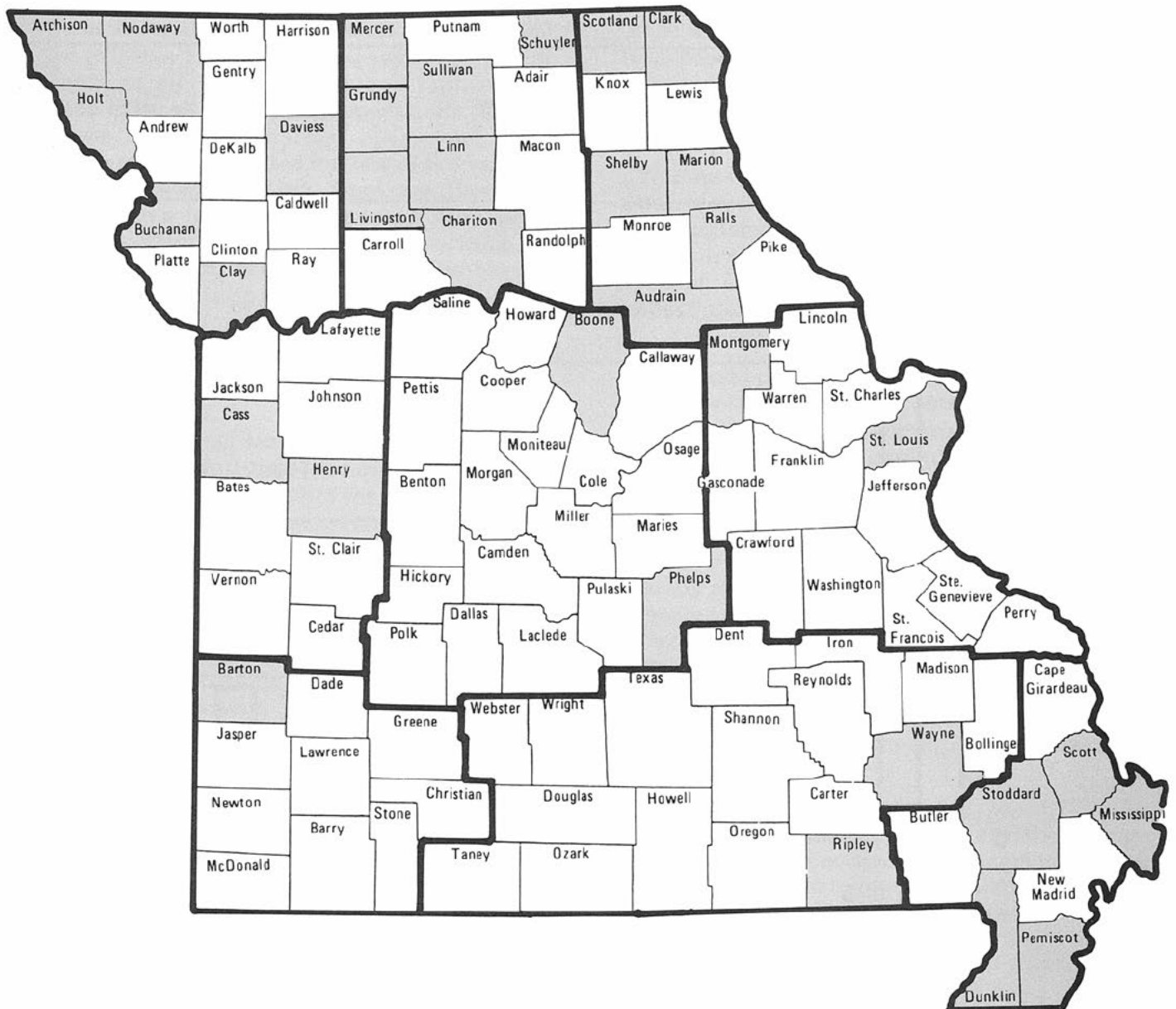


FIGURE 3
COUNTIES WITH A 20%
REDUCTION IN CATTLE NUMBERS
1980 TO 1985



Population

The restructuring of rural Missouri is well evidenced by examining the population itself. From 1981-1985, all but eleven counties in Northern Missouri and all six of the counties in the Bootheel, declined in population (Figure 4). During the same time period, only nine counties in Southern Missouri, excluding the Bootheel, experienced a population decline. One of these counties was in a more traditional agricultural area along the Missouri River. When comparing population changes between these time periods, all but two were either north of the Missouri River or in the Bootheel area (Figure 5).

From 1975 to 1985, eight Missouri counties increased in population by 20% or more. These counties were adjacent to the regional centers of Kansas City, Joplin, Springfield-South lake area, Lake of the Ozarks, Columbia, and South Central-Poplar Bluff (Figure 6). An even more graphic illustration of the significant population shift is depicted by the counties experiencing a lower percentage increase, 10% to 20% and 5% to 10%, during the same time period (Figure 6). With the exception of Hannibal, Kirksville-Macon,

Clinton-Lakes, and St. Joseph Centers, this pattern fringes around the growth centers already mentioned. The lack of population growth is evident in Northern Missouri.

The population pattern appears to be one of movement from primarily agricultural based counties towards, and outward from developing regional centers providing a full socioeconomic base. Secondly, Missouri's rural population is becoming more mobile in terms of their willingness and ability to travel increasing distances to shop, market, and work.

Another important demographic division between Northern and Southern Missouri lies in the distribution of age between counties and regions. Of thirty-eight counties in Missouri with more than 19% of their population over 65 years of age, twenty-two of those are north of the Missouri River (Figure 7). Of those counties in Northern Missouri (over 19% being over 65 years of age) all but DeKalb county showed a population decline from 1981 to 1985 (Figure 4). The rural population of Missouri is undergoing a transition in location, mobility, and demographic composition.

FIGURE 4
COUNTIES WITH A POPULATION DECLINE
1981 TO 1985



FIGURE 5

**COUNTIES WITH A ZERO
POPULATION CHANGE OR DECLINE
1975-1985, 1981-1985 and 1984-1985**



FIGURE 6

PERCENTAGE CHANGE IN
POPULATION BY COUNTY
1975 TO 1985

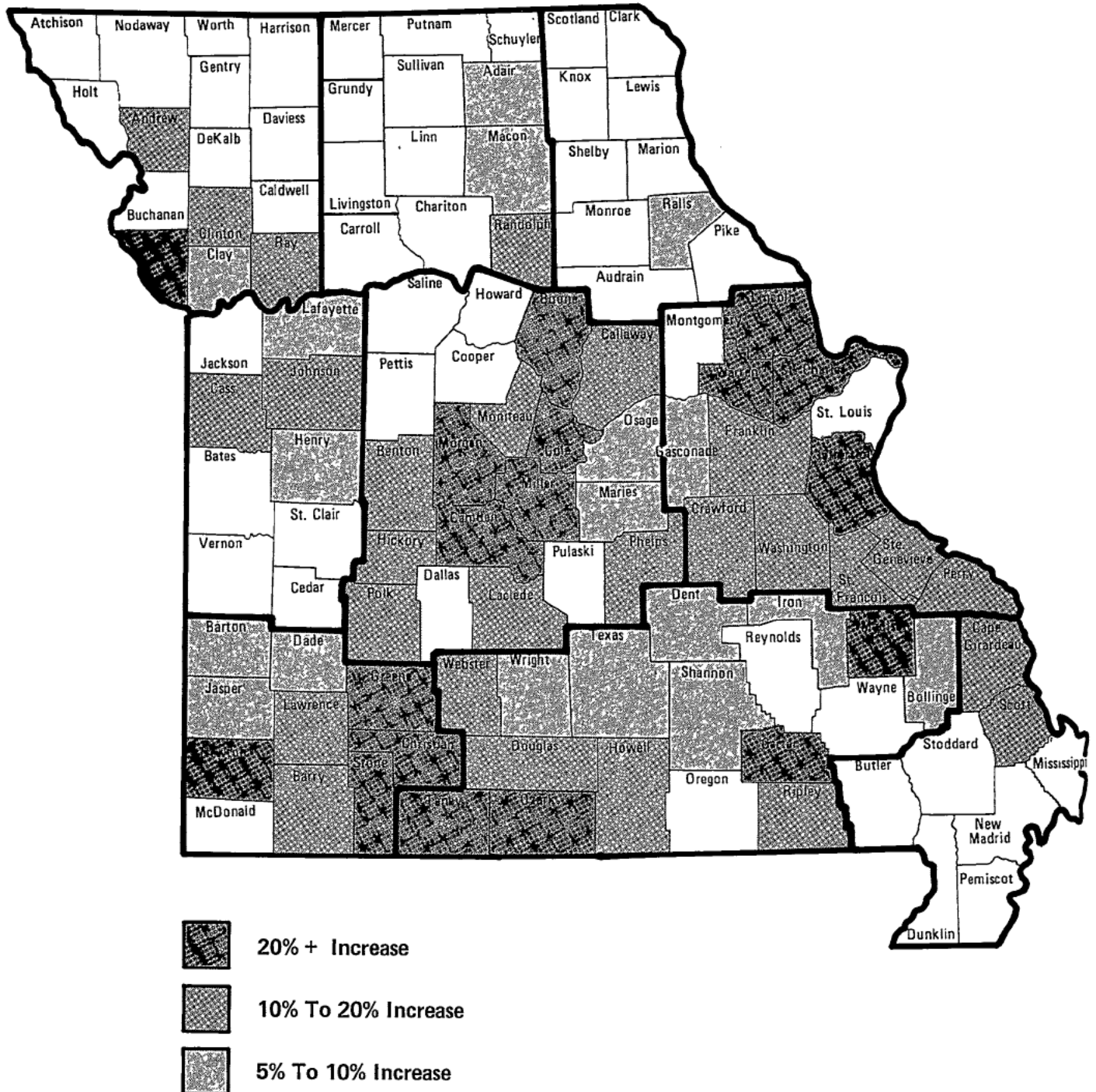
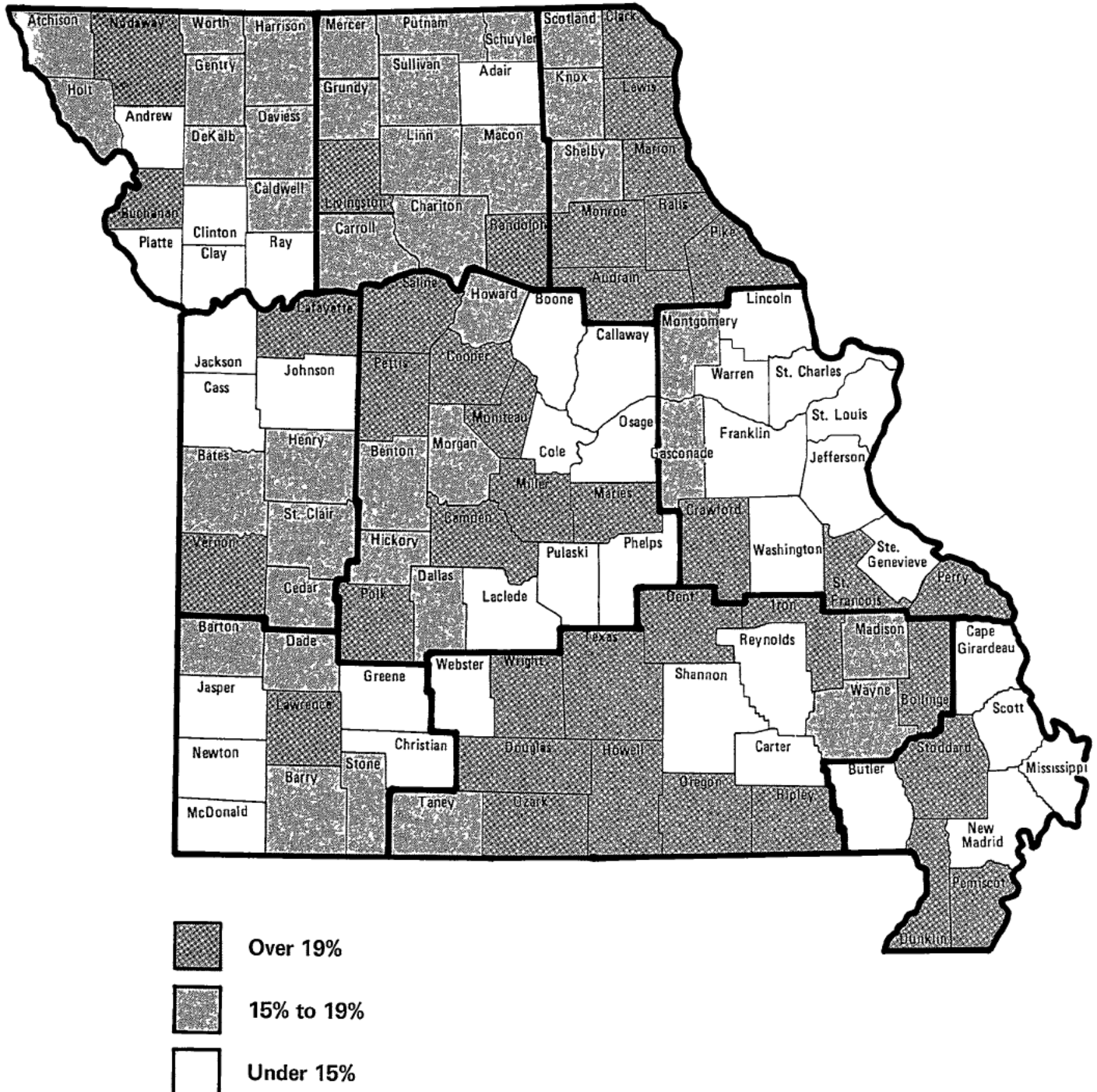


FIGURE 7

1980 PERCENTAGE OF THE
POPULATION AGE 65 YEARS AND OVER



Farm Structure

By 1982, 8% of Missouri farms, with over \$100,000 in sales, accounted for 54% of total farm sales (Figure 2). At the same time, the number of farms with less than \$5,000 in sales had increased sharply with those farms under \$5,000 in sales accounting for 39% of total farm numbers in Missouri. In fact, from 1978 to 1983 only six counties showed a decline in the number of farms with less than \$2,500 in value of products sold (Figure 8). With the exception of Clinton and Chariton counties, all the counties exhibiting an increase of at least 40% and 40 actual numbers of farms in the less than \$2,500 category, were located south of the Missouri River (Figure 9). When one examines the growth of part-time/hobby farms in counties with at least a 40% and 40 farmer increase, one finds it was only in the counties to be clustered around the regional centers previously mentioned. Figure 10 presents an alternative means of presenting the data concerning farm growth by depicting the counties in Missouri with a 50 or greater increase, in the \$2,500 or less category, from 1978 to 1982.

This shift in farm structure, with a growth in the number of part-time/hobby farmers, increasing the importance of the larger commercial producer and demise of the mid-sized production unit, alters the demand for farm services, input form and sources, and marketing systems. While the small producer buys his inputs once a week and hauls them in his pickup, the large commercial producer purchases in bulk units. The part-time/hobby farmer sells smaller units of product locally with no particular marketing strategy while the "big" farmer delivers direct to processors or large terminal markets, utilizing sophisticated marketing plans, methods, and alternatives. The needs of the two groups are obviously different and therefore adjustments are being made to accommodate the changing structure more efficiently. The agribusiness complex will have to adapt accordingly. The opposing needs and demands of the two district farmer groups is causing, and will continue to cause, some radical shifts in agribusiness structure and the way we view the functions and role of the input and marketing sector.

FIGURE 8

COUNTIES WITH A DECLINE
IN NUMBER OF FARMS WITH
LESS THAN \$2,500 IN SALES

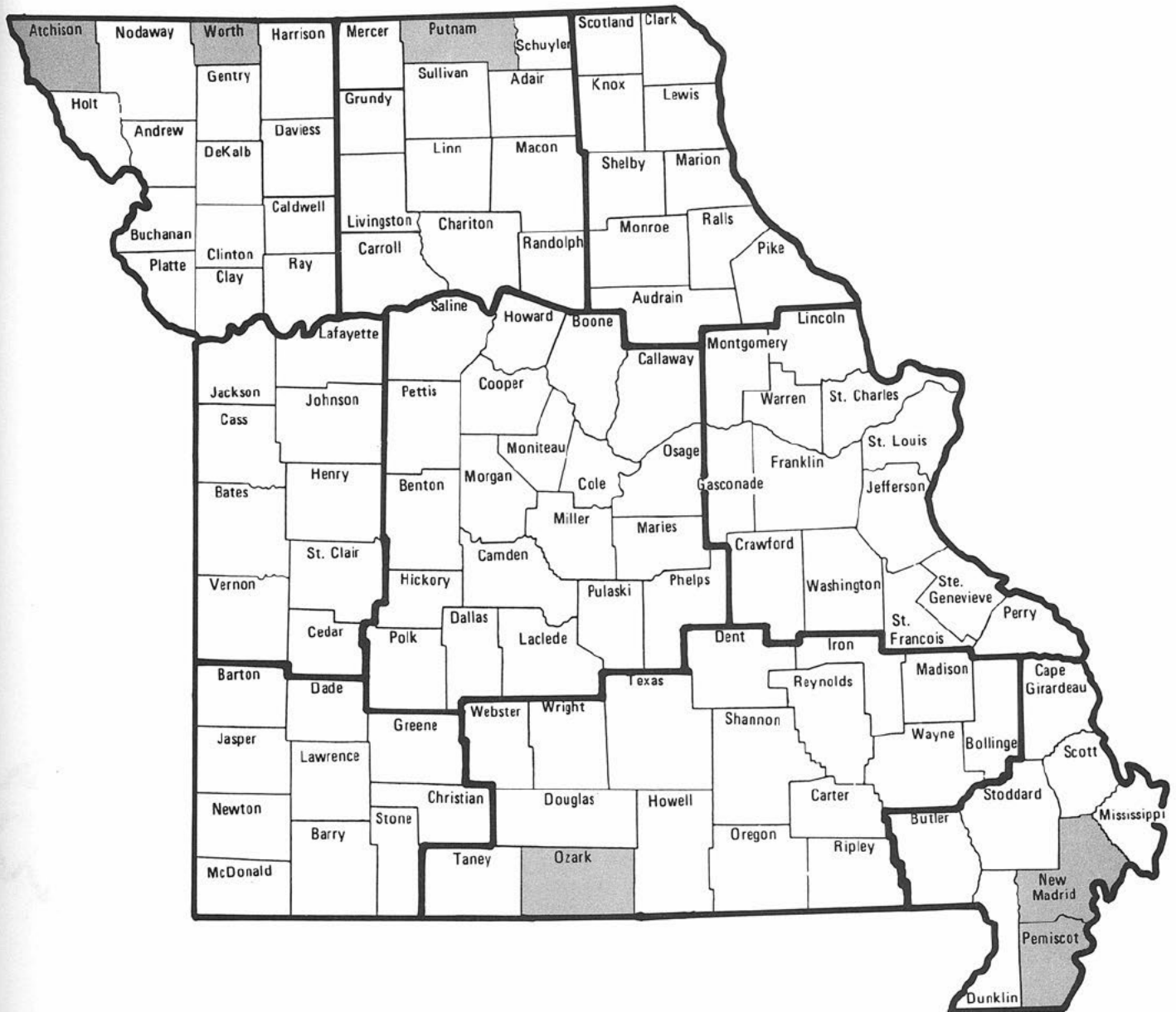
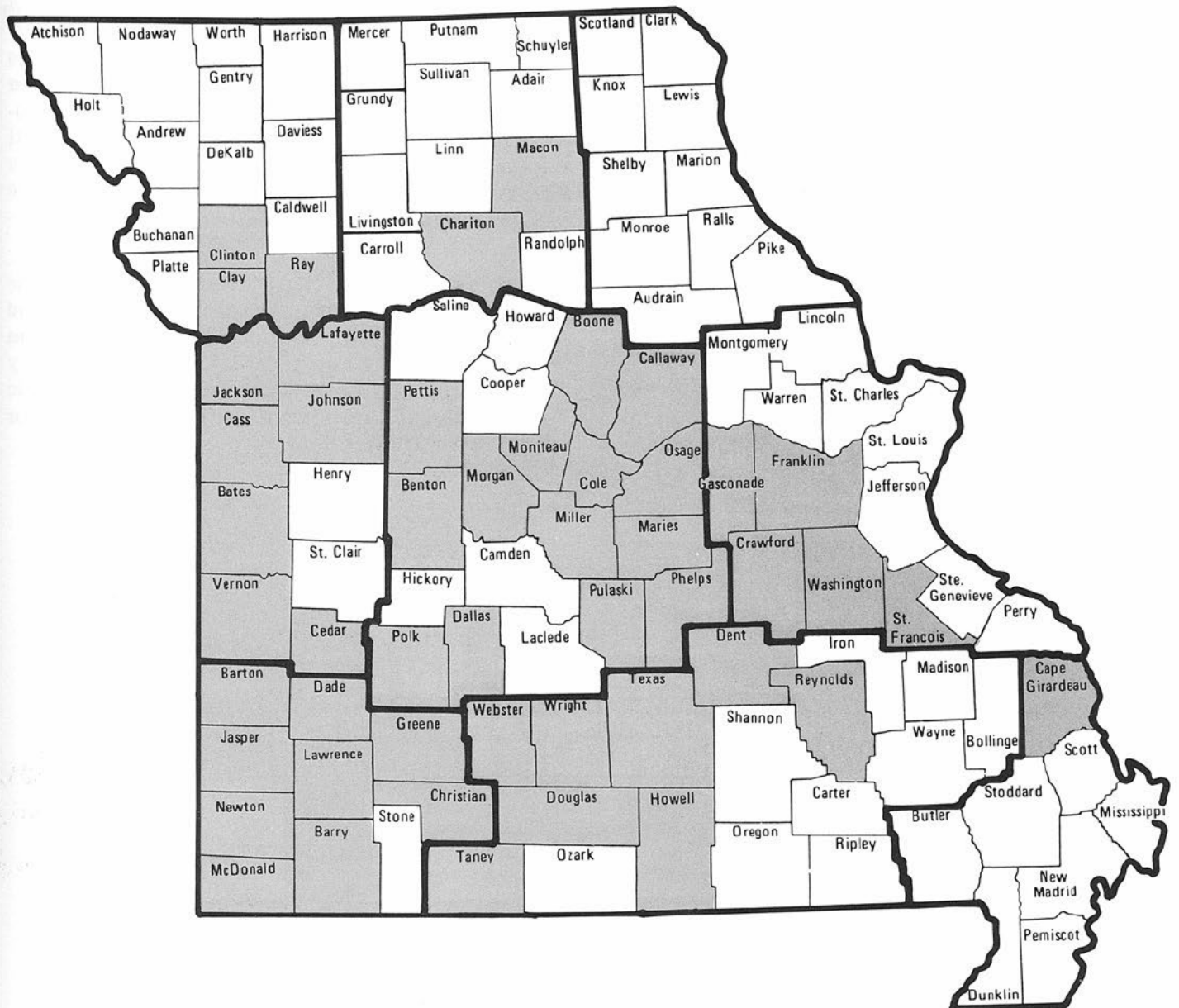


FIGURE 10

**COUNTIES WITH A 50 OR
GREATER INCREASE IN NUMBERS OF FARMS
WITH LESS THAN \$2,500 IN SALES**



Internationalization of Agriculture

Federal agricultural policy has traditionally been oriented toward production. Having existed for years as the primary world grain supplier, the United States found it difficult to adjust to the post 1973 era as merely an alternative source of supply. It became increasingly difficult to compete with other grain producing nations who possessed a cheaper labor input source as well as market oriented policies. We suddenly realized our agricultural industry was not local, not state, not national, but international in scope, with dependency on international factors of uncertainty.

Operating under this international influence, only the best quality of land and other inputs with the greatest comparative advantage will be able to compete in the future. States such as Iowa, Illinois, and Indiana possess critical quality land for the production of corn and soybeans. Only New Madrid county in Missouri has an historical corn yield that exceeds the yield in those three states. No Missouri counties have a soybean yield above the three state average. Missouri yields for wheat and grain sorghum are more competitive (Figures 11 & 12). It is interesting to note that the leading counties in terms of corn production per

acre (county yields compared to the Missouri state average) are along the Missouri and the Mississippi Rivers. The county yields of wheat, soybeans, and grain sorghum are a little less defined but still show a geographical dominance in river counties (Figures 13, 14, 15, and 16).

A comparative advantage that Missouri does maintain is its dual river system which may allow the river counties to compete effectively in the international market of the future. However, many hold out hopes that production oriented technology such as growth regulators will allow Missouri's marginal grain land to compete effectively in the world market. This will not be the case. In fact, it will have a negative impact on Missouri. If technology can improve the production capability of marginal land, it will improve production capability of quality land to an even greater extent. Therefore, the competitive differential will remain.

The international agricultural market of the future will be highly sensitive to national and international policy. A more free market system will place many marginal counties on a totally non-competitive basis. The agricultural economic base in these counties will further deteriorate or vanish for all practical purposes.

FIGURE 11

COUNTIES ABOVE THE AVERAGE
THREE STATE WHEAT YIELD
(OKLAHOMA, NEBRASKA, KANSAS)

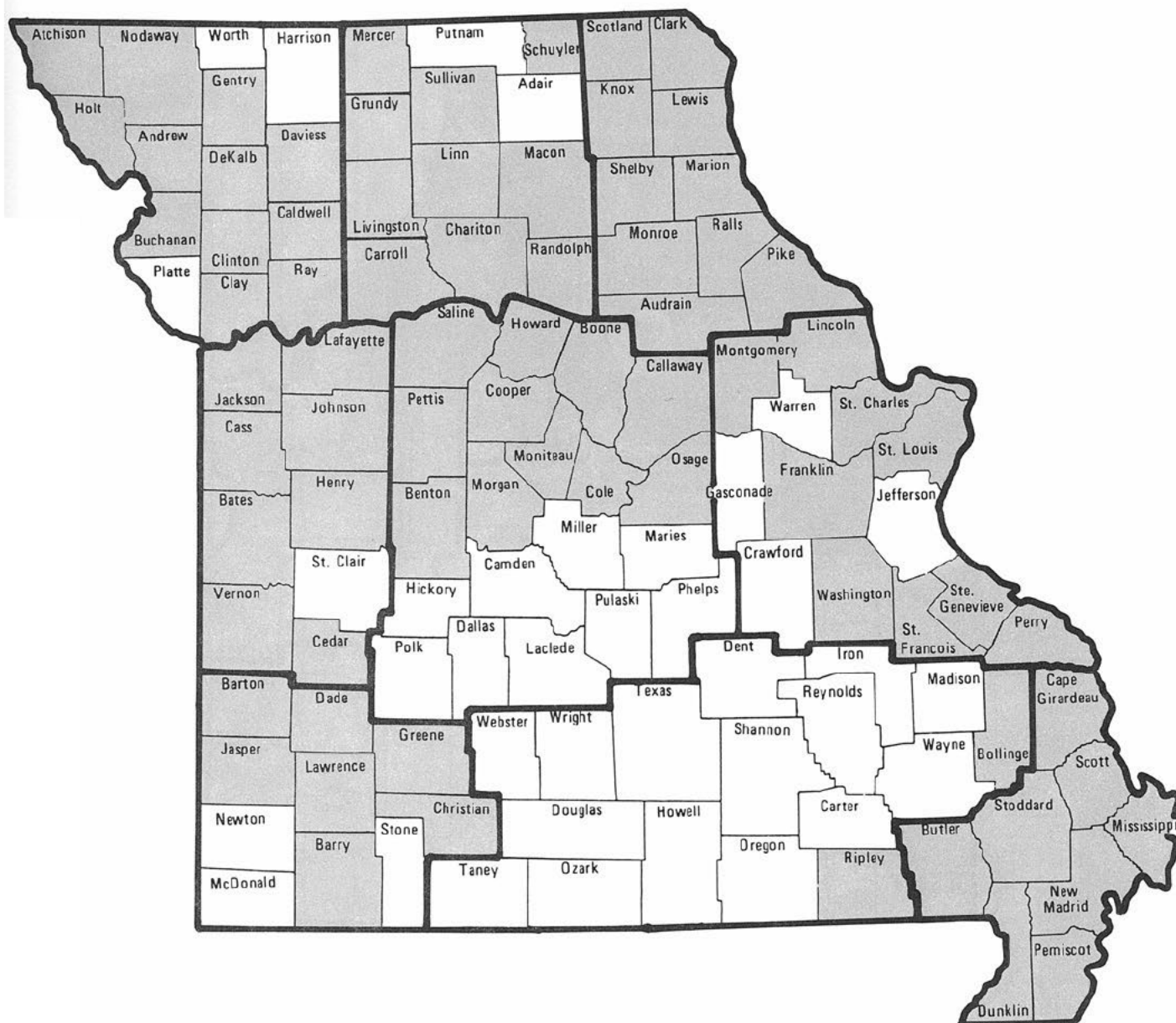


FIGURE 12

COUNTIES ABOVE THE AVERAGE
TWO STATE GRAIN SORGHUM YIELD
(KANSAS, NEBRASKA)

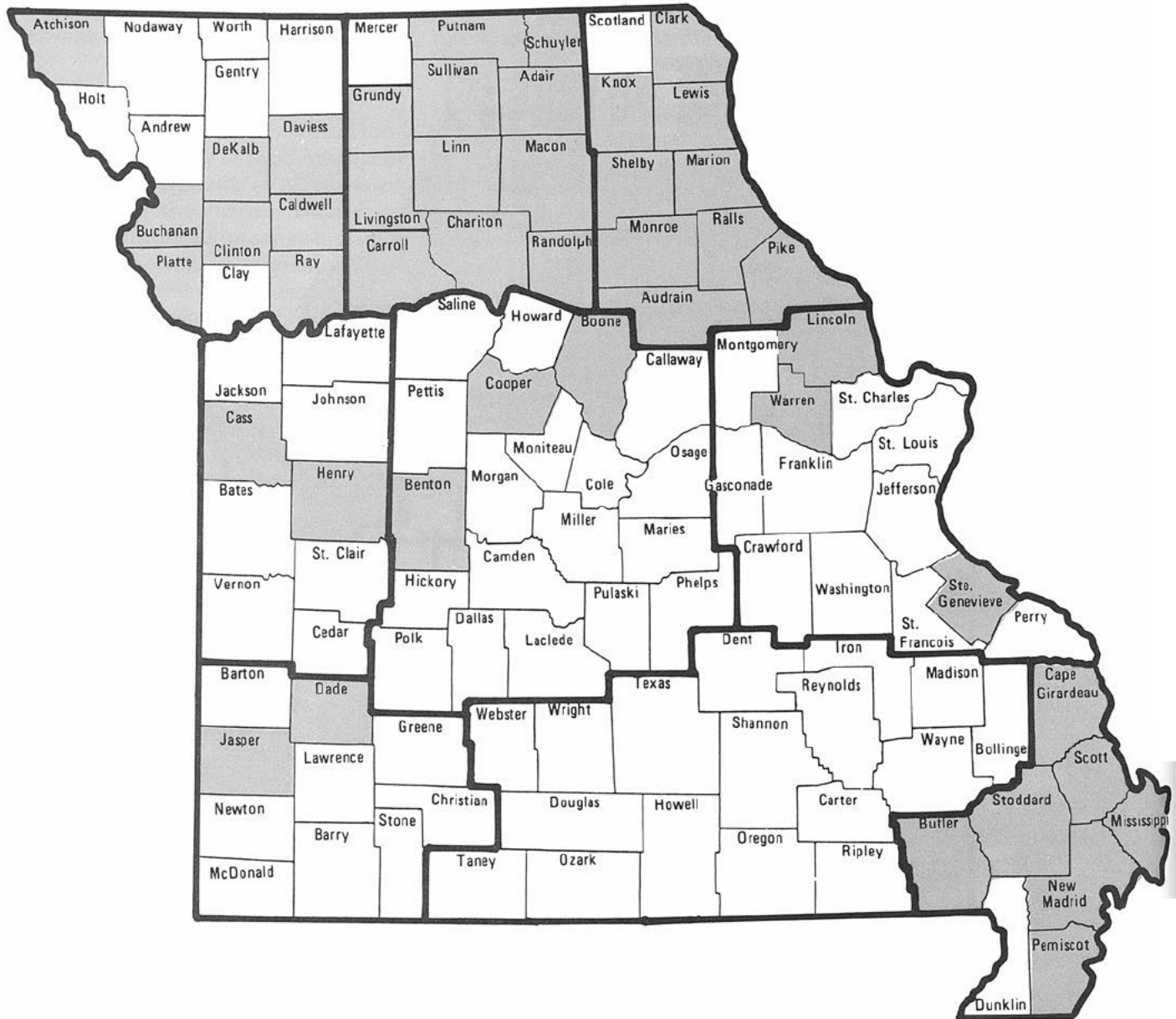


FIGURE 13

COUNTIES EQUAL TO OR ABOVE THE
TEN YEAR AVERAGE MISSOURI
PER ACRE CORN YIELD



FIGURE 14

COUNTIES EQUAL TO OR ABOVE THE
TEN YEAR AVERAGE MISSOURI
PER ACRE WHEAT YIELD

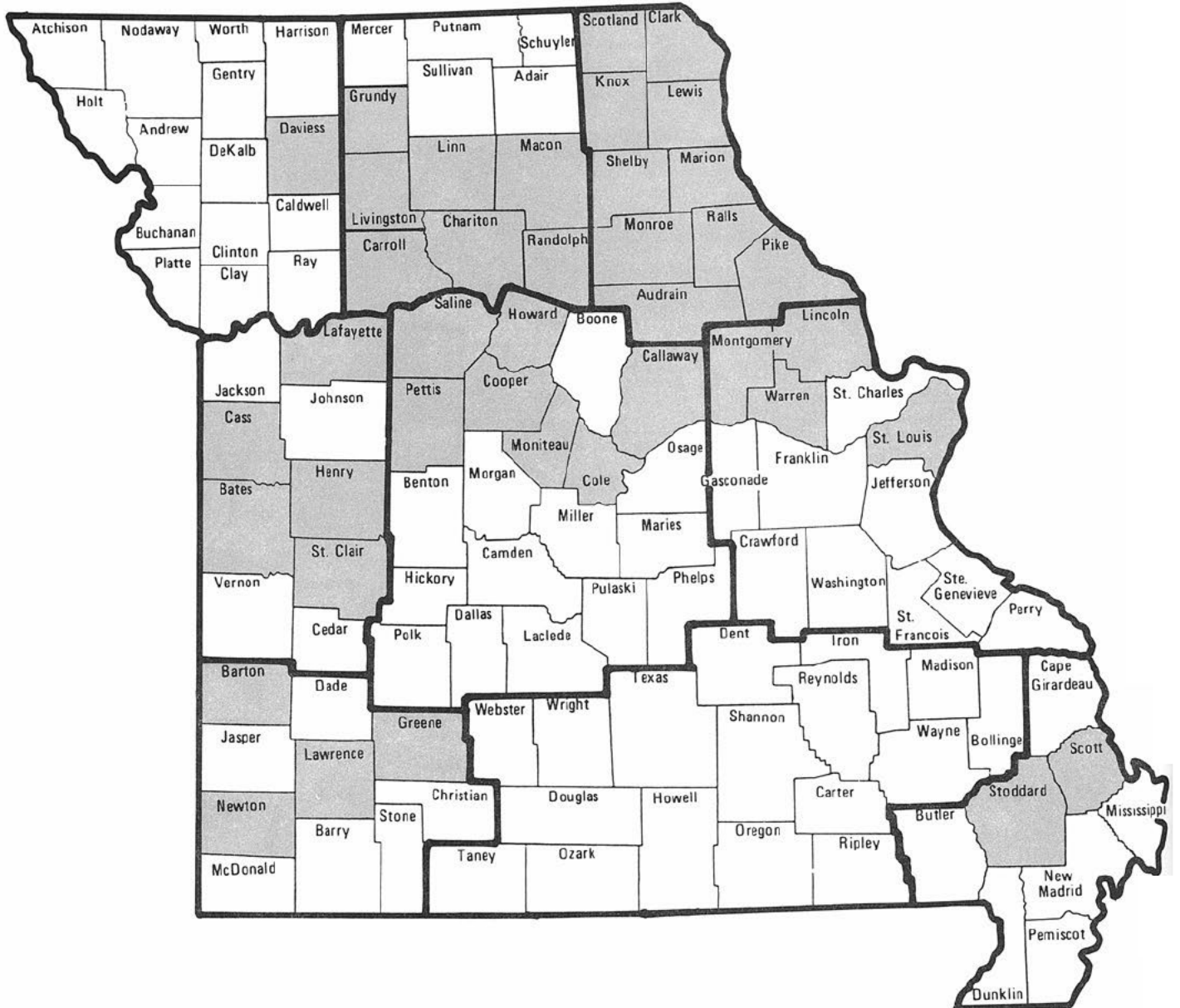
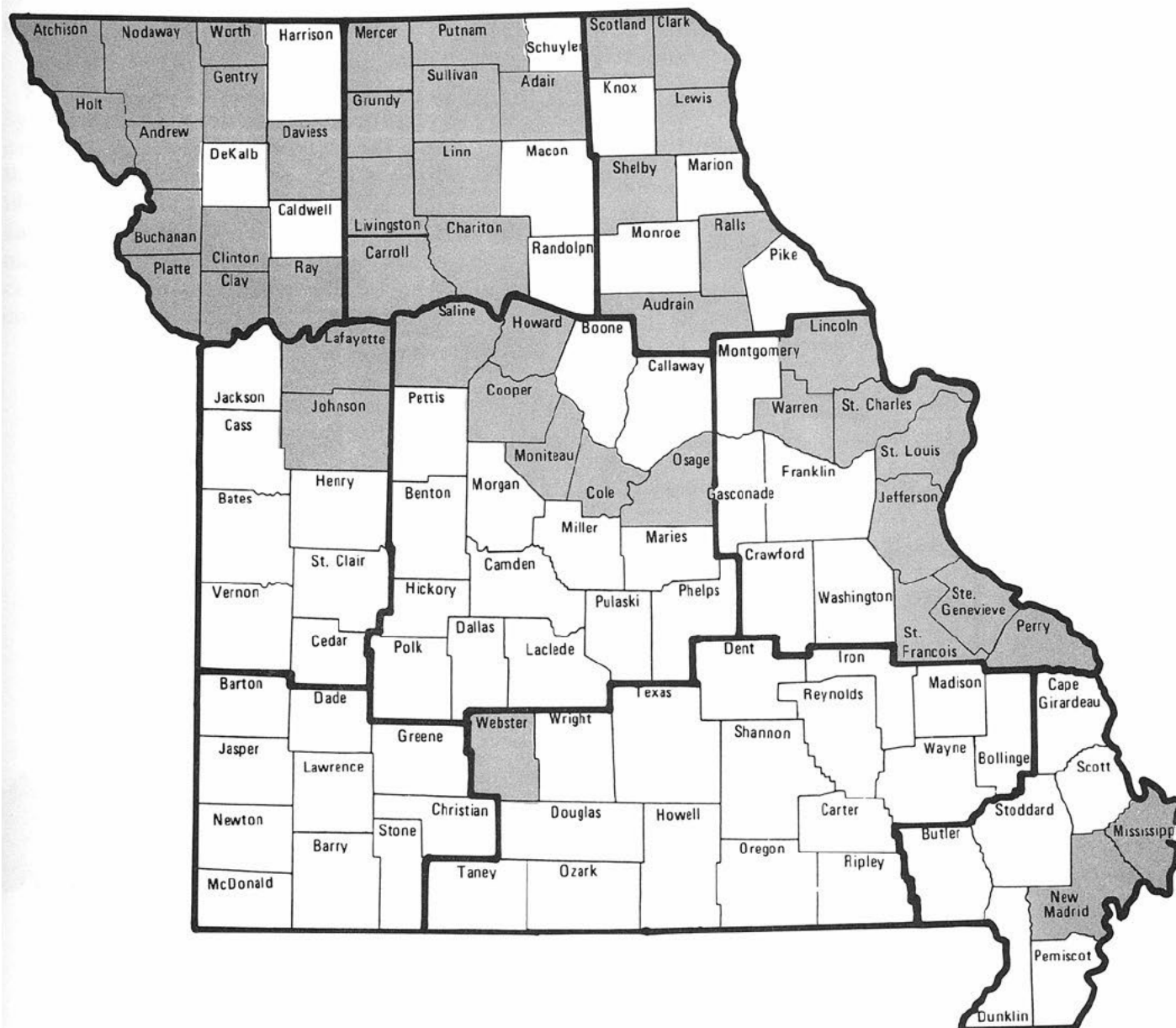


FIGURE 15

COUNTIES EQUAL TO OR ABOVE THE
TEN YEAR AVERAGE MISSOURI
SOYBEAN YIELD



COUNTIES EQUAL TO OR ABOVE THE TEN YEAR AVERAGE MISSOURI PER ACRE GRAIN SORGHUM YIELD



Regional Centers

Key regional centers in Missouri have already developed, e.g., Kansas City, St. Louis, Joplin, Springfield-South Lakes, Lake of the Ozarks, Columbia-Jefferson City, Poplar Bluff, Hannibal, Kirksville, Clinton-Lakes, St. Joseph, and Cape-Sikeston. This is evidenced by data on population previously illustrated. Further evidence supporting development and continued expansion in some areas is provided through population mobility, income changes, and small business data.

Figures 17 and 18 depict population mobility by examining counties according to the percentage of people, by county, that work outside their county of residence. This data not only identifies some of the regional centers but also shows the employment impact spreading far out into the traditional rural area. In most cases, the heart of the regional center is the county, as one would expect, without signifi-

cant population mobility, e.g., Greene, Boone, Cole, etc.

Further evidence of the regional center's impact is shown in Figures 19, 20, and 21. These charts depict small business starts and changes in personal incomes. The lack of small business starts and decline in personal income in vast areas of Northern Missouri is in stark contrast to the cluster of economic activity around southern regional centers.

These regional centers mentioned are large enough to offer full consumer and producer service for all their socioeconomic needs. These centers will continue to develop with the possible additions of towns such as Chillicothe, West Plains, and Salem. Actually there is opportunity for small towns contiguous to the regional center to grow, but it will be determined by the towns ability to compliment the regional center rather than to compete with it. This evolution will have a dramatic impact on local school districts, tax bases, colleges and universities, and social service institutions.

COUNTIES WITH MORE THAN 50% OF WORKING FORCE WORKING OUTSIDE COUNTY OF RESIDENCE



FIGURE 18

COUNTIES WITH MORE THAN 25%
OF WORKING FORCE WORKING OUTSIDE
COUNTY OF RESIDENCE

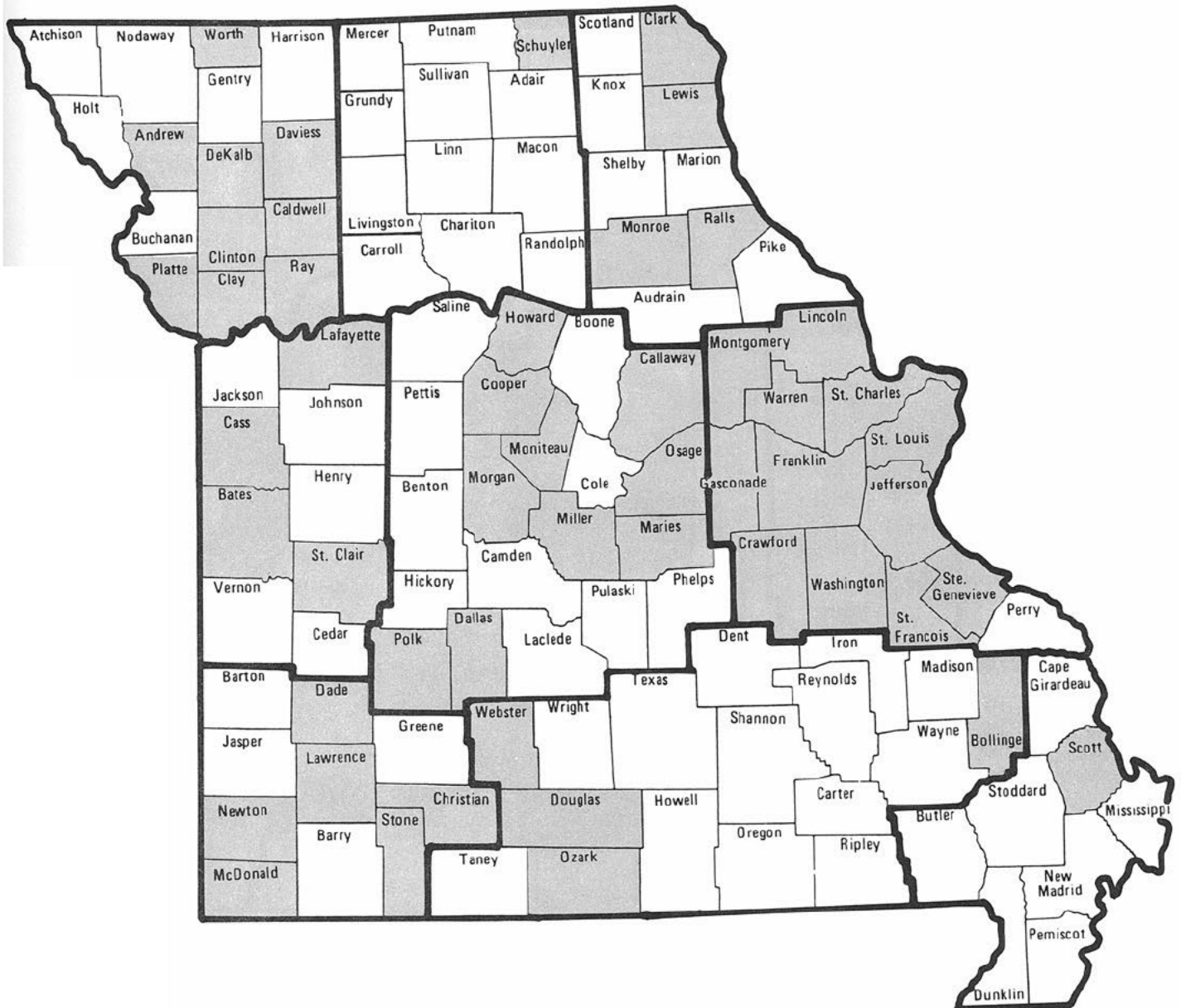


FIGURE 19

COUNTIES WITH 20% OR
GREATER INCREASE IN SMALL BUSINESS
1980 TO 1984

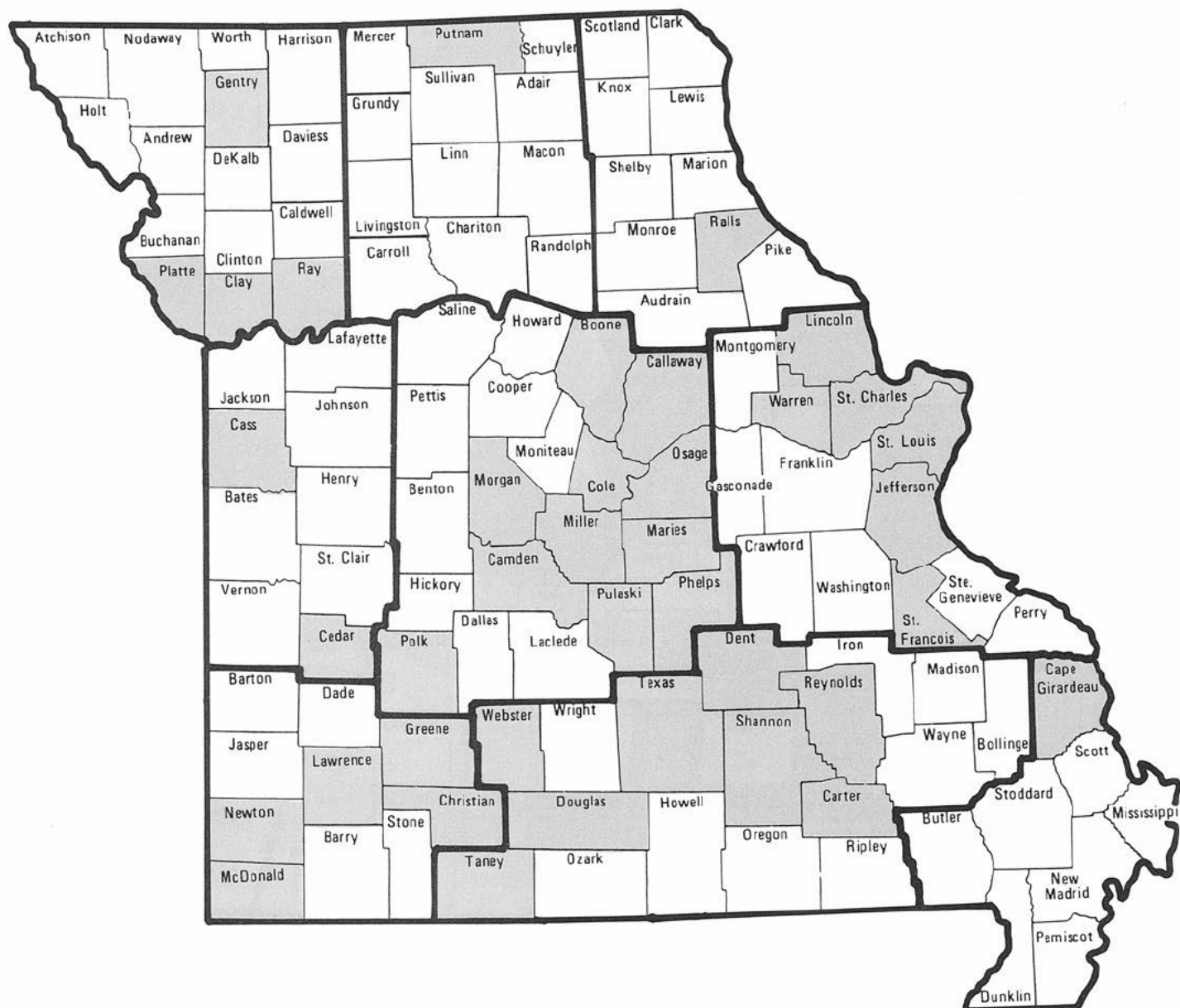


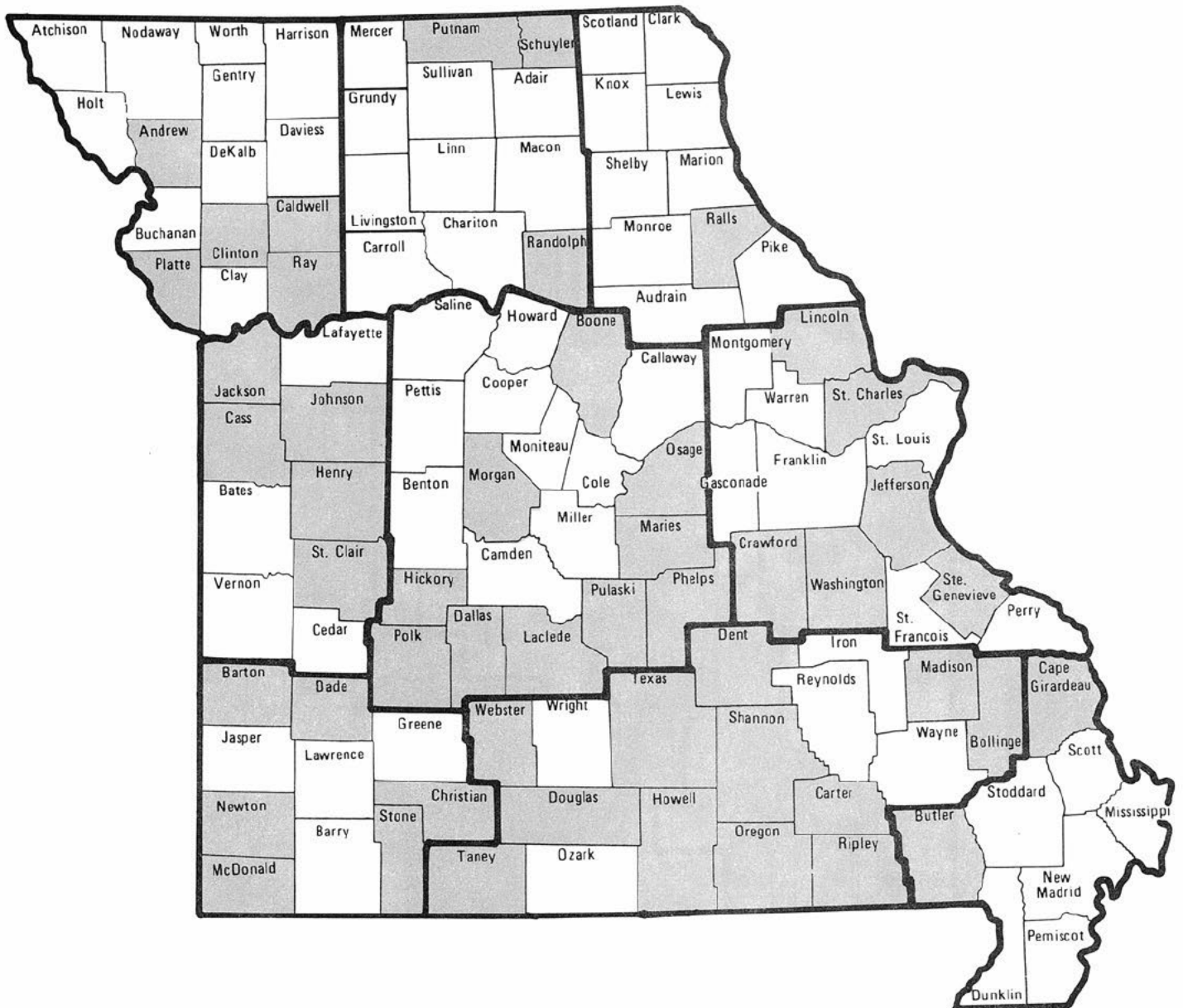
FIGURE 20

MISSOURI COUNTIES WITH A DECLINE
IN PERSONAL INCOME
1982 TO 1983



FIGURE 21

MISSOURI COUNTIES WITH A 10%
OR GREATER INCREASE IN PERSONAL INCOME
1982 TO 1983



Summary

By the year 2001, Missouri's structure will be significantly different. Recreation and tourism will be the primary industry in Southern Missouri. Northern Missouri and the Bootheel will go through 15 years of dramatic transition. Without the geography that allows for easy transition to lakes and recreation areas, the transition to other employment alternatives outside of agriculture will be difficult. Northern Missouri and the Bootheel will have to rely more on developing small industry, cottage industry, and attracting more general employment opportunities into their respective regional centers. Of the two groups remaining in agriculture in North Missouri, the part-time/hobby farmer will continue to produce some grain and raise livestock, but his operations will not be profitable, except in rare cases. The full-time commercial farmer that remains will have to be able to compete on a one-to-one basis with his counterparts in other states. In fact, he will probably have to face consistently low grain and soybean prices by 2001. There will be only a few counties, again along the two rivers, that will be able to competitively produce corn and soybeans. It would seem that dairy, beef, and grain sorghum will increase in visibility in Northern Missouri during the next fifteen years.

During this period, much of Northern Missouri will be economically deprived compared to the rest of the state. One result of the changing agricultural environment will be a return of more

grassland and cattle to Northern Missouri. There appears to be some opportunity for backgrounding beef as well as dairy operation in the North. Grain and forage produced on marginal land might be utilized in dairy and backgrounding enterprises. The feasibility of dairy emphasis in the north needs to be studied, given the changing competitive nature of North Missouri and some comparative location advantage they might have in terms of grain and feed procurement and forage utilization of marginal land, that was historically used for row crops.

Opportunities exist in this restructuring for emphasis to be placed on the production of specialty crops. However, to be effective a given area that is best suited for a particular specialty crop needs to concentrate on that production such that required volumes and reliability of supply can be established. If specialty crop producers are geographically dispersed over the state, procurement disadvantages to processors will be too great. A coordinated effort must exist between state government and universities to identify high potential specialty crop areas and help coordinate the development of producer and processor/buyer involvement.

North Missouri and the Bootheel face the greatest adjustment challenge presented by the internationalization and the new structure of agriculture. However, with flexibility, innovation, determination, and directional assistance they will adjust. It just will not be easy or quick.

BASELINE AND ALTERNATIVE ECONOMIC FORECASTS

INTRODUCTION AND OVERVIEW

The Commission contracted with Wharton Econometrics Forecasting Associates, Inc., a well-known international consulting firm, to provide economic consulting services. This portion of the Commission's report presents the baseline and various alternative economic forecasts for the U.S. and Missouri through the year 2000. The U.S. forecasts were prepared using Wharton's Long-Term Model of the U.S. economy.

The baseline forecast embodies those views of the economy which are felt to be most likely. The trend growth scenario presents an economy without large cyclical swings, but with similar average growth. The lower- and higher-growth scenarios show the impact of the accumulation of both positive and negative factors which could affect growth in the long run. These views of the economy are very useful for the long-term planning when possible alternative states-of-the-world must be explored. These four U.S. forecasts are discussed in detail below.

The baseline and three alternative U.S. forecasts were then used as drivers in the preparation of corresponding baseline and alternative forecasts for the Missouri economy. The Missouri forecasts were prepared using Wharton's Missouri State Model. The details of the Missouri State Model forecasts are available in separate documentation. Appendices II-a through II-d provide examples of some of the key data. The forecast results are discussed below following the detailed analysis of the U.S. outlook.

BASELINE FORECAST

The U.S. economy will experience slower population and employment growth through the forecast period. This has an impact on overall economic growth, which is generally at lower levels near the end of the forecast period compared with the early years of the forecast.

The slowdown in population growth which began in the early 1960s is now affecting the

growth rate of the labor force. The reduction in the growth rate is the primary reason for potential growth declining from highs in the 1950s and 1960s to more moderate levels in the 1980s and 1990s. Declining labor force growth means that labor markets will tighten and wages will rise.

Major Assumptions

- Long-term demographic trends continue to affect economic growth through declining population growth and the aging of the population.
- Fiscal and monetary policy are assumed to be relatively stable, which helps to reduce inflationary expectations.
- Spending constraints at the federal level help to curtail deficits, which remain under control indefinitely and continue to shrink as a share of the total economy.
- Export growth starts to outpace import growth because of the dollar's decline. This eventually brings net exports into surplus for much of the forecast period.

Demographic Outlook

Population growth has been on a downward trend for many years. During the 1960s and 1970s, population growth of 1.1% a year was common. In the 1980s 1.0% growth per year is the norm, and by the end of the 1990s will be in the 0.8% range. This decline is projected to continue so that by the end of the forecast period total population growth will be a mere 0.7% per year.

Over a 15-year forecast period a change in population growth of this degree has many implications for the outlook. If the population is not growing very rapidly, labor force growth, the housing industry, the level and types of consumer goods required, and the average age of the population are affected. Slowing population growth also has implications for the types of goods and services required by governmental entities in the economy. Demographics is perhaps the most important feature in terms of any variable's economic impacts, especially when projections are for a 15-year period.

When a forecast is prepared for a 15-year period, the echoes of various demographic events can be seen. For example, women of the postwar baby-boom generation are now in their prime child-bearing age and their progeny will start to enter child-bearing age groups by the end of the forecast. Also, children born in recent years as a result of the baby boom echo will start to place increasing strains on the education system several years into the forecast which has implications for government policy. The increase in the number of women in the 16-35 age group has raised the number of live births per year from 3.1 million in 1973 to just over 3.85 million in 1986. The number of live births per year will continue to climb for the next four years and then decline until 2000.

The increase in the number of live births and estimated net migration of 750,000 per year are helping to keep population growth from declining more rapidly despite a total fertility rate of less than 2%. Declining mortality rates are also helping to prop up population growth.

As the baby-boom generation matures, the average age of the population increases because of the sheer size of this generation and declining mortality rates. The aging of the population has been going on for many years. In 1950, 12.2% of the population was age 60 and over. By 1980 the figure was 15.7% and by the end of the forecast 16.7% of the population will be in this category. Just beyond the end of the forecast period the first age cohorts of the baby-boom generation will be retiring. This has implications for the Social Security system which relies on working individuals to support those on the retirement rolls.

The aging of the population will have a tendency to keep household growth higher than population growth. This is because headship rates — the number of individuals who head a household divided by the total population — are always higher for older age groups. Since there is an increasing number of individuals in older age groups, a more rapid increase in the number of households will be observed. From 1986 to 2000 the average growth per year in the number of households will be 1.4% while population will show average growth of 0.9%.

These demographic shifts will have a major impact on the economy. Slower population growth means a reduced level of demand, especially for nondurable consumption goods and, ultimately,

slower economic growth. The aging population will also cause a shift in the composition of demand. For example, consumption of services, especially health services, will be strong, while nondurables and durables consumption will have a tendency to weaken.

Average household growth is 1.7% from 1986 to 1996 but then quickly drops toward 1.0%. This slowdown means that the market for durable goods will falter. Residential investment growth will also weaken for the same reason. This is particularly evident in housing starts, which come in at about 1.75 million units per year early in the forecast and end up at slightly below 1.5 million units per year in the last few years of the forecast.

Labor Supply

Male participation in the labor force has declined during the past 35 years going from over 86% in 1950 to just over 76% in 1985. The reasons for this decline are increasing school enrollment rates and the trend toward earlier retirement. Both of these trends have stabilized in recent years. By the end of the forecast period the male participation rate is just over 72% which represents much less of a decline than was seen from 1950 to 1985.

On the other hand, the female participation rate has been rising rapidly. From 1950 to 1985 the rate went from 34% to almost 55% and is projected to be approaching 63% by the end of the forecast. This rapid upward movement can be explained by noting that women have seen ever increasing employment opportunities, changes in society's views, lower fertility rates, and wage increases.

Changes in both male and female participation rates will not be as dramatic during the forecast period as during the period 1950-85. This, coupled with the fact that the baby-boom generation is already in the labor force, will slow the growth in the labor force. Labor force growth averages about 2% during the first couple of years of the forecast and ends up at about 1% by the end of the forecast. This slower growth causes the labor market to tighten and forces up wages as employers compete for workers.

Composition of Demand

Table 1 lists expenditure shares of real GNP (Gross National Product) for ten year intervals from 1970 to 2000. Consumption will increase as a

share of real GNP through 1990 and then decline slightly. For the three main consumption categories the changing demographic structure of the economy has had and will continue to have large impacts.

- The declining rate of population growth and the low income elasticity of most nondurable goods will continue to cause the nondurables share to decline.
- Durables share of real GNP will continue to grow because of real disposable income growth. However, the slowdown in the rate of household formation will moderate growth in durables consumption.
- Real disposable income, income growth, the aging of the population, and changes in lifestyles have had a major impact on service's share in the past. While service's share will climb, the increase will not be as dramatic as was seen from 1970 to 1980. On the down side, the slowdown in household growth reduces the growth in housing services.

Business investment has continually grown as a share of real GNP. Advances in technology are assumed to provide many opportunities for increasing productivity with capital investment. Also, international competition will provide a strong incentive to invest.

Residential investment in the long run is determined by demographic factors and the factors that determine household formation, like real per capita income growth, the relative price of housing, and the growth of employment. During the latter part of the forecast period, the baby-boom generation's impact on residential investment is expected to lessen. The slowdown in the growth in the number of households will pull down the level of housing starts over the forecast period. The aging of the population will also have a tendency to increase the demand for multi-unit starts relative to single-unit starts.

Table 1
EXPENDITURE SHARE OF REAL GNP
(Percent)

	1970	1980	1990	2000
Consumption	61.7	62.8	65.8	64.5
Durables	6.7	7.7	9.4	9.4
Nondurables	28.8	23.5	23.7	22.3
Services	26.2	31.1	32.7	32.8
Investment	15.4	16.1	16.4	17.3
Nonresidential	10.9	12.2	12.2	12.5
Residential	4.5	3.9	4.2	4.8

Table 1 (Continued)
EXPENDITURE SHARE OF REAL GNP
(Percent)

	1970	1980	1990	2000
Net Exports	-1.2	1.5	-1.7	0.1
Exports	7.4	12.1	11.9	13.6
Imports	8.6	10.6	13.6	13.4
Total Government	23.7	19.4	19.5	17.6
Federal	11.1	8.0	8.0	6.6
State and Local	12.6	11.4	11.5	11.0

From 1990 on, export's share of real GNP increase more than twice as fast as does import's share. By the end of the forecast period, trade will have a positive impact on real growth. This is due to more international competition and the increasing ability of domestic manufacturers to compete in export markets. This increased ability comes from business investment which promotes productivity and a stable dollar through much of the forecast period.

Total governments' share of real GNP has been and will continue to be on a long-term decline. Both federal and state and local governments determine this pattern. The federal government share drops more rapidly than the state and local share because more of the governmental burdens to maintain a safety net will be shifted to state and local governments. Changes in demographics will also dictate higher expenditures by state and local governments on education than was seen in recent history.

Composition of Output

Table 2 shows shares of real output for some sectors of the economy. The share of total manufacturing output to real GNP has risen continually from 1950 and is projected to continue to do so. Durables share continues to grow, while nondurables share stays relatively unchanged. This is due to growth in the demand for durables and declining demand for nondurables as a result of the growth in real disposable income. Services share also rises over time because of growing demand for services relative to other areas of consumption. For other sectors, most of the change in output shares takes place between 1980 and 1990. After that point, output of the commercial, regulated, and wholesale and retail sectors stay at about the same levels relative to real GNP. Output of the finance, insurance, and real estate sector does decline from 1990-2000 and this decline is a reflection of slowing demand and intense competition in this area which will weed out providers of these types of output.

Table 2
SHARES OF REAL OUTPUT
(Percent)

	1970	1980	1990	2000
Total Manufacturing	20.9	20.9	21.3	22.1
Durables	12.6	12.6	12.8	13.5
Nondurables	8.3	8.3	8.5	8.6
Services	12.2	13.9	15.2	15.9
Commercial and Other	48.3	51.1	53.0	53.6
Finance, Insurance, and Real Estate	13.2	14.6	15.4	14.9
Regulated	4.2	4.1	3.4	3.6
Wholesale and Retail	15.2	15.7	17.2	17.3

TREND FORECAST

Our trend forecast is based on smoothing key baseline assumptions over the entire forecast period based on their starting and ending values in the baseline forecast. This method produces a forecast which is devoid of any large cyclical swings but also makes the years between cycles look very different from the baseline. The resulting growth path is generally higher than the baseline during the first part of the forecast and generally lower during the second part of the forecast.

Major Assumptions

- In general all components of GNP exhibit smooth and continuous growth approaching the ending period value of the baseline.
- Strong cyclical swings are not observed for housing starts, or, consequently, residential investment.
- Monetary authorities do not foresee a reason to tighten the money supply, therefore short- and long-term interest rates do not increase much.
- Real government expenditures and energy prices have no tendency to show a cyclical pattern due to stable economic growth.

LOWER GROWTH

In the lower-growth alternative interest rates are forced upward in response to rising inflation, lowering investment and consumer spending. Government expenditures slow down and foreign growth is lower as well, limiting export opportunities. The aggregate effect will be to lessen the average annual GNP growth to 1.9% through 2000 compared with 2.8% in the baseline.

Major Assumptions

- Monetary policy, in the face of higher inflation, will be more stringent leading to higher real interest rates.
- Federal government expenditures are lower. Lower economic growth reduces tax collections, resulting in continuing deficits.
- Lower growth in the U.S. pulls down foreign growth.
- Population growth is lower.

Population

Lower fertility rates and shorter life expectancies will slow population growth to an average of 0.5% over the forecast period, compared with 0.9% in the baseline. This will have a negative impact upon household formation, resulting in an average 1.1% growth per year, 0.3% beneath the baseline.

Wages and Prices

In response to successful collective bargaining, wage rates increase modestly from the baseline average of 7.0%, to 7.2% in the low alternative. Increase wage costs are transferred to the consumer, resulting in a wage-price spiral which drives overall prices upward. Consequently, inflation averages 5.6% a year in the low-growth alternative versus 4.8% in the baseline. Higher inflation boosts interest rates, which in turn inhibit business expansion and job creation.

Productivity and Employment

Weak recovery periods and high interest rates allow only moderate growth in business fixed investment, impeding the development and implementation of new technology, especially in manufacturing. This, in conjunction with threatened cutbacks in employment, discourages increases in worker productivity. The sustained period of high unemployment following downturns in the business cycle interrupts the training of entry-level workers, further inhibiting productivity gains. These factors result in the unemployment rate remaining above 7.0% from 1986 to 2000, and an average growth in output per person of 1.2% in the low-growth alternative versus 1.5% in the baseline.

Monetary Policy and Interest Rates

Money supply growth in the low alternative is generally accommodative, and exhibits an average

growth rate slightly below the nominal GNP. In 1989 and 1990, however, accelerating inflation causes the Federal Reserve Board to restrict the growth of the monetary aggregates. This action coupled with persistent inflation, drives the short-term Treasury bill rate up from 6.7% in 1986 to 8.7% in 1990. The run-up in short-term rates coupled with inflation above 6% push the AAA corporate bond rate to a peak of 12.2% in 1990.

Fiscal Policy

The average growth rate of government expenditures is reduced from 1.8% to 1.1% in the low-growth alternative. Federal government expenditures are reduced from an average growth rate of 0.8% to 0.2%. Real defense spending is reduced to 0.3% from 0.9%, and nondefense expenditures fall less than 0.1% on average.

In this scenario, however, decreasing federal government expenditures does not produce the desired effect of lessening the deficit. Instead, the restriction in government spending dampens economic growth, which results in lower tax revenues. Decreased revenues coupled with a growing debt service offsets the reduction in expenditures. As a result, the federal deficit increases under this scenario.

State and local government expenditure growth drops from 2.4% to 1.8%. Due to the demographic trend toward lower birth rate and fewer school age children, growth in state education expenditures slows to 1.5% on average, 0.6% beneath the baseline growth rate.

Investment

Lower economic growth greatly increases the costs and risks of investment. Therefore, both residential and business investment suffer declines in growth. Relative to the baseline the recessionary declines are deeper and the recoveries weaker, producing an adverse risk environment.

- Business fixed investment, suffering from weak growth in production and increases in interest rates, grows at an average of 1.7% versus 2.9%.
- Residential investment grows only 0.9% per year over the period 1986-2000. Both lower economic growth and the assumed demographic trends limit the number of people seeking new housing units. New housing starts never exceed 1.4 million units and fall to about one million units by 2000.

Consumption

The deep recessions and longer periods of slow economic and personal income growth seriously constrict consumption spending. Workers uncertain job security and aware of rising prices become more conservative in spending. As a result, the savings rate increases significantly.

Consequently, consumption grows at 1.5% versus the 2.6% average for the baseline. Lower levels of consumer confidence and high interest rates dampen purchases of furniture and automobiles.

Foreign Activity

Lower growth in the United States has a negative influence on the world economy, pulling real foreign growth down to an average of 2.7% per year during the 1986-2000 forecast period. Inflation among the major trading partners averages 5.8%, compared with 5.6% in the United States.

- A mild economic expansion and higher rate of inflation abroad cause imports to weaken, resulting in average growth of 2.3% versus 3.5% in the baseline.
- Exports average growth rate drops to 4.9% compared with 5.4% in the baseline as foreign consumption reacts to sluggish economic growth.
- Import growth averages less than export growth resulting in a surplus of real net exports by 1996.

HIGHER GROWTH

The higher-growth alternative represents a dramatic improvement over the baseline — prices grow more slowly, interest rates moderate, and productivity increases. Over the forecast period, real GNP is expected to average 3.5% annual growth, compared with 2.8% in the baseline. Stable prices and modest wage gains help to restore the international competitiveness of U.S. exports.

Major Assumptions

- Monetary policy, in the face of lower inflation, will be more expansionary leading to lower real interest rates.
- As a consequence of expansionary monetary policy interest rates will be lower.
- Real federal government expenditures are higher. High growth increases tax collections, shrinking the deficit throughout the forecast period.

- The world economic environment shows greater cooperation and higher growth.
- Population growth is higher than in the baseline.

Population Outlook

Slightly higher fertility rates and longer life expectancies for men and women result in population growth of 1.3% versus 0.9% in the base case. The number of households averages growth of 1.7% per year during 1986-2000, compared with 1.4% in the baseline.

Wages and Prices

Wage rates grow moderately at 6.8% annually, slightly below the baseline's 7.0% average. Because of improved labor relations and workers' strong preference for job security, wage gains are modest — just enough to keep pace with the expected inflation rate. Inflation as measured by the GNP implicit price deflator averages 3.9% during 1986-2000, compared with 4.8% in the baseline.

Energy Prices

Imported oil prices increase at rates of 4.1% in the first decade and 6.7% thereafter averaging 3.0% above the expected inflation rate. Because of a weakened oil price cartel, however, coupled with lower non-cartel oil prices, a supply shock is not foreseen.

Productivity and Employment

The outlook for productivity growth continues to improve in the higher-growth scenario because of modest wage growth, stable prices, improved labor relations, and the use of advanced technology. Overall, productivity grows at an average of 1.7% compared with 1.5% in the baseline. With the continued expansion and improved international competitiveness of the U.S., economy employment growth is also stronger. Workers are drawn into the labor force at an annual rate of 1.6% compared with 1.2% in the baseline.

Monetary Policy and Interest Rates

It is assumed that monetary authorities ease credit conditions by expanding the money supply. Growth in the money supply averages 7.7%, compared with 7.6% in the baseline. As a consequence, both long- and short-term interest rates fall below their baseline levels, boosting both aggregate spending and the desired capital stock.

Fiscal Policy

Extra growth and lower interest rates reduce the federal budget deficit. Because of lower inflation, real federal government spending growth averages 1.4% annually versus 0.8% in the baseline. In real terms defense spending grows 1.5% annually and nondefense 0.9%. The slowdown in total nominal spending brings the deficit down gradually to \$44.4 billion in 1996.

Investment

Improved credit conditions in the higher growth scenario promote higher investment.

- Business fixed investment shows a robust growth, 3.8% compared with 2.9% annual growth in the baseline.
- Residential investment exhibits 2.7% growth versus 1.8% growth in the baseline.

Consumption

Consumer spending grows rapidly in this alternative.

- Low interest rates expand the money supply and allow consumers to increase their borrowing.
- Rising employment and lower inflation build consumer confidence and promote consumption.

Real expenditures on personal consumption are forecast to average 3.4% and should boost overall economic growth.

Foreign Activity

The world economic environment in this scenario is characterized by greater economic cooperation and higher growth. As confidence in the world economy rises, U.S. interest rates fall, and higher productivity increases demand for U.S. exports. In addition, the expansion of world growth causes foreign prices to decrease, thus promoting a rise in U.S. imports.

- Exports are forecast to average 5.7% growth per year, compared with 5.4% in the baseline.
- Overall, imports will grow 4.4% annually, 0.9% above the baseline.
- Faster growth in U.S. exports and reduction in foreign prices cause the U.S. current account balance to improve.

COMPARISON OF BASELINE AND ALTERNATIVE FORECASTS

Table 3 presents the average growth rates of three key economic indicators in the baseline forecast and the three alternative forecasts over the period of 1986 to 2000. The variation in growth rates indicates how the states-of-the-world in the year 2000 would differ in each of the four forecasts.

Table 3
AVERAGE ANNUAL GROWTH
(1986 to 2000)

	Baseline	Trend Growth	High Growth	Low Growth
Real GNP	2.8	3.1	3.5	1.9
Productivity	1.5	1.6	1.7	1.2
Inflation	4.8	4.6	3.9	5.6

To reiterate, the baseline forecast presents an economy of moderate real growth of 2.8% and moderate inflation of 4.8% annually. In contrast, the trend growth scenario has higher real GNP growth, lower inflation, and slightly higher productivity. The trend growth scenario avoids the cyclic patterns of the baseline, allowing growth to be continuous instead of stop-and-go.

The high growth scenario is an optimistic alternative to the baseline forecast. In the high growth economy, growth of real GNP is 0.7% higher annually than in the baseline. The higher real growth is accompanied by higher productivity growth and lower inflation.

In contrast, the low growth scenario is a pessimistic alternative to the baseline. Real GNP growth is 0.9% lower than the baseline and productivity growth is 0.3% lower than the baseline. Inflation, which is 0.8% higher than the baseline, accompanies the lower real growth and lower productivity.

The unemployment rates in the baseline and the three scenarios follow general economic trends. The baseline shows a slight decline in unemployment from 7.1% in 1985 to 6.8% in 2000. The trend growth scenario has a similar pattern of a slight decline in unemployment. As expected, the high-growth scenario has unemployment well below the baseline, declining to 5.9% in 2000. The low-growth scenario shows increasing unemployment, rising to 7.9% by the end of the forecast period.

In general, employment shares do not show significant trends over the forecast period. The exception to this is the manufacturing sector. The

manufacturing share declines in the baseline and in each scenario as the importance of manufacturing in the U.S. economy continues to decline. This decline is particularly marked in the low-growth scenario where the manufacturing share falls 3.3% by the year 2000. Motor vehicles (including auto parts), electrical equipment and instruments, and food and beverages (including food processing) show slight declines in employment shares over the forecast period.

Table 4
OTHER ECONOMIC INDICATORS

	Baseline		Trend Growth		High Growth		Low Growth	
	1986	2000	1986	2000	1986	2000	1986	2000
Unemployment Rate (Percent)	7.1	6.8	7.1	6.7	6.6	5.9	7.5	7.9
Employment Shares (Percent)								
Manufacturing	17.5	14.2	17.5	14.7	17.8	14.5	17.2	13.9
Motor Vehicles	0.8	0.6	0.8	0.6	0.8	0.6	0.7	0.5
Transportation	1.0	1.0	1.0	0.8	1.0	1.0	1.0	0.8
Equipment Excluding Autos								
Electrical Equipment and Instruments	2.6	2.3	2.6	2.3	2.7	2.2	2.6	2.3
Food & Beverages	1.5	1.2	1.5	1.2	1.5	1.2	1.5	1.2

MISSOURI VERSUS U.S. ECONOMIC PERFORMANCE: 1975-86

Missouri's economic performance fell short of U.S. economic performance during the 1975-86 period. Over this period, U.S. employment grew at an average annual compound growth rate of 2.42 percent while Missouri employment grew by only 1.70 percent per year. Missouri's slower than U.S. average employment growth tended to encourage outmigration. As a result, Missouri's population grew at a rate substantially below that for the U.S.; 0.53 percent per year for Missouri versus 1.02 percent for the U.S.

Missouri's manufacturing sector also grew more slowly than the U.S. manufacturing sector (0.42 percent per year in Missouri versus 0.61 percent per year). This somewhat weak manufacturing sector performance in Missouri occurred despite strong employment growth performance in three of Missouri's major manufacturing sectors: electrical machinery (1.28 percent over the 1975-86 period per year); motor vehicles (1.91

percent per year); and non-auto transportation equipment (1.36 percent per year). The strong growth performance of the latter two sectors, in turn, can be attributed to strong growth in U.S. industrial production in these sectors during the 1975-86 period; U.S. motor vehicle industrial production grew at 4.83 percent annual rate while non-auto transportation equipment industrial production grew at an annual rate of 3.31 percent.

Consumer prices in Missouri grew at an average annual rate of 6.46 percent per year during the 1975-86 period. U.S. consumer prices, over the same period, grew at a slightly higher annual rate of 6.53 percent per year.

EFFECT OF ALTERNATIVE FUTURE U.S. ECONOMIC GROWTH PATHS ON THE MISSOURI ECONOMY

Four forecasts of the Missouri economy were produced over the 1986-2000 period using Wharton's Missouri State Model. These forecasts are produced using the output of the four U.S. alternative forecasts previously presented; namely the Baseline, Trend Growth, Low-Growth, and High-Growth.

Table 5 presents selected predicted growth rates over the 1986-2000 period for U.S. and Missouri economic variables under the four alternative scenarios. Tables 6 and 7 provide selected growth rate and variable level data for the Baseline Forecast. Table 8 compares the three alternative forecasts with the Baseline Forecast. Tables 9 through 11 provide growth rate summaries for the three alternative forecasts while Tables 12 through 14 show selected forecast data values for these three alternatives. Detailed forecast tables for the four Missouri forecasts are contained in Appendices II-a through II-d.

Under the Baseline Forecast, U.S. employment growth averages 1.29 percent over the 1986-2000 period which is significantly below its 1975-86 growth rate of 2.42 percent. Missouri's total employment growth rate also declines from 1.70 percent over the 1975-86 period to 0.96 percent over the 1986-2000 period, but this decline is much less dramatic than for the U.S. As a result, Missouri employment growth is much closer to U.S. growth during the forecast period.

Labor force growth in Missouri over the 1986-2000 period under the Baseline Forecast is somewhat slower than employment growth which leads to a decline in the unemployment rate from 6.03 percent in 1986 to 5.20 percent in 2000. Popula-

tion growth in Missouri averages 0.40 percent per year during the 1986-2000 period. Labor force as a percent of total population rises from 49.8 percent in 1986 to 52.8 percent by the year 2000. This higher ratio of labor force to population reflects continued increases in labor force participation and an increase in the ratio of working age population to total population.

Real personal disposable income grows by 2.45 percent per year from 1986 through 2000 which is slightly slower than the rate of real income growth for the U.S. Missouri's somewhat weaker real income growth can be attributed to its slightly weaker employment growth.

Projected Missouri consumer price index (CPI) growth under the Baseline Forecast is somewhat higher than U.S. CPI growth, but both inflation rates are significantly below the 6.5 percent CPI growth experienced over the 1975-86 period.

Missouri manufacturing sector employment grows during 1986-2000 at an average annual rate of 0.16 percent versus an average annual rate of increase of 0.42 percent during the 1976-86 period. This drop in Missouri manufacturing sector employment growth over the forecast period is due in part to productivity gains in the sector, more output can be produced with fewer workers, and partly due to slowdowns in industrial production growth in the transportation equipment manufacturing industries. Over the 1986-2000 period, the industrial production index for autos grows at an average annual rate of 1.39 percent versus a 4.83 percent growth rate over the 1975-86 period. Similarly, the industrial production index for non-auto transportation equipment is projected to grow at an annual rate of 2.65 percent during the 1986-2000 period which is substantially below its 3.31 percent annual growth rate over the 1975-86 period.

The primary difference between the Trend Growth and Baseline scenarios is that the former scenario includes smooth projections for inputs and that policy moves are made to avert or damp cyclical swings. While the Trend Growth and Baseline forecasts are expected to produce very similar output and employment growth paths over the very long term, the absence of major business cycles of the 1986-2000 period, however, leads to a higher growth projection under the Trend Growth during this period for both output and employment. Over a longer time span, the two scenarios produce convergent growth paths.

Average annual U.S. and Missouri employment growth under the Trend Growth scenario exceeds

that under the Baseline by between 0.1 and 0.2 percent per year. Projected labor force growth changes by similar percentage amounts. These small differences in employment and labor force growth leads to only small changes in the projected U.S. and Missouri population growth. Since U.S. employment growth, increases by slightly more than does Missouri's employment growth, Missouri's population growth slows slightly relative to its Baseline Forecast performance. Personal income growth under the Trend forecast increases by about 0.3 percent relative to its Baseline Forecast rate. Consumer price inflation rates are reduced slightly under the Trend Growth versus Baseline (cyclical) forecast. Missouri manufacturing sector employment growth improves by almost 0.3 percent per year (Trend Growth versus Baseline) due to higher U.S. industrial production growth.

The Low-Growth and Higher-Growth scenarios provide a wide but plausible range for employment growth potentials in both the U.S. and Missouri. As described above in the discussion of the corresponding U.S. scenarios, the Low-Growth scenario assumes unfavorable circumstances in numerous areas while, conversely, the High-Growth scenario embodies favorable economic circumstances in these same areas. As a result, the Low-Growth scenario implies not only lower growth but also higher inflation than embodied in the High-Growth scenario.

Under the Low-Growth scenario, average annual employment growth over the 1986-2000 period in the U.S. and Missouri falls below the Baseline rates by between 0.6 and 0.7 percent per year. Under the High-Growth alternative, U.S. and Missouri annual employment growth are up by between 0.5 and 0.6 percent relative to their Baseline Forecast rates. Labor force growth shows similar but slightly less pronounced swings.

Population growth moves in the same direction as employment and labor force growth relative to

its Baseline forecast path, but the change in the annual population growth rate is smaller. The population growth rates change by between 0.3 and 0.4 percent relative to their Baseline scenario rates.

The U.S. and Missouri CPI growth rate is higher by about 0.9 percent per year under the Low-Growth scenario than under the Baseline scenario. CPI price growth under the High-Growth scenario is approximately one percent less per year than under the Baseline scenario. This favorable inflation outcome under the High-Growth scenario stems from assumed higher productivity growth and assumed lower primary commodity (oil and other) price growth.

Real personal disposable income exhibits larger growth swings than does employment. As shown in Table 8, under the Low-Growth scenario, real personal disposable income in 2000 falls below its Baseline value by 14.8 percent versus a 9.8 percent drop in employment. Conversely, under the High-Growth scenario, real personal disposable income in 2000 is 16.8 percent higher than under the Baseline versus a 9.5 percent increase in employment. These relatively larger swings in real income are due to productivity and inflation changes. Under the High-Growth scenario, productivity growth is higher and inflation is lower which leads to larger real gains in income than in employment. Conversely, lower productivity, combined with higher inflation under the Low-Growth scenario, leads to a larger drop in real income than in employment.

Missouri manufacturing sector employment growth is lower under the Low-Growth scenario than under the Baseline scenario, but the slow-down in employment growth is less than the drop in output growth rates due to a coincident reduction in productivity growth. Conversely, the Missouri manufacturing sector employment growth gains under the High-Growth scenario are muted by productivity growth improvement under this scenario.

Table 5
ALTERNATIVE MISSOURI FORECASTS
AVERAGE ANNUAL GROWTH RATES
(1986 to 2000)

Economic Variable	Baseline Forecast	Trend Growth	Low Growth	High Growth
Population				
U.S.	0.91	0.94	0.64	1.27
Missouri	0.40	0.35	-0.00	0.87
Labor Force				
U.S.	1.27	1.43	0.71	1.80
Missouri	0.82	0.90	0.15	1.44
Employment				
U.S.	1.29	1.47	0.66	1.88
Missouri	0.96	1.03	0.22	1.62
Real Personal Disposable Income				
U.S.	2.65	2.98	1.66	3.71
Missouri	2.45	2.75	1.28	3.59
Consumer Prices				
U.S.	4.79	4.64	5.70	3.82
Missouri	4.93	4.81	5.86	3.94
Industrial Activity				
U.S. Industrial Production	2.29	2.58	1.33	3.15
Missouri Mfg. Employment	0.16	0.45	-0.48	0.70

Table 6
AVERAGE ANNUAL GROWTH RATE
SUMMARY OF BASELINE FORECAST

Variable Definition	1986 to 1990	1990 to 1995	1995 to 2000	1986 to 2000
Population	0.52	0.27	0.43	0.40
Labor Force	0.99	0.63	0.88	0.82
Employment	1.08	0.76	1.05	0.96
Real Personal Disposable Income	2.42	2.43	2.49	2.45
Consumer Prices	4.50	5.00	5.20	4.93
Manufacturing Employment	0.18	0.32	-0.02	0.16
Food (20)	0.43	-0.48	-0.67	-0.29
Machinery (35)	1.13	-0.51	0.64	0.37
Electrical Machinery (36)	1.12	0.74	0.30	0.69
Motor Vehicles (371)	-1.76	0.94	0.18	-0.11
Other Transportation (372.9)	-0.84	0.73	-0.11	-0.02

Table 7
SUMMARY OF BASELINE FORECAST

Variable Definition	1986	1990	1995	2000
Population	5081	5187	5258	5273
Labor Force	2531	2633	2717	2839
Employment	2348	2451	2546	2683
Unemployment Rate	6.03	6.02	5.62	5.20
Real Personal Disposable Income	51.23	56.37	63.56	71.88
Consumer Prices	315.3	376.0	479.9	618.4
Manufacturing Employment	422.9	425.9	432.8	432.3
Food (20)	45.9	46.7	45.6	44.1
Machinery (35)	30.4	31.8	31.0	32.0
Electrical Machinery (36)	48.4	50.6	52.5	53.3
Motor Vehicles (371)	33.6	31.3	32.8	36.2
Other Transportation (372.9)	36.3	35.1	36.4	36.2

Table 8
COMPARISON OF ALTERNATIVE FORECASTS
WITH BASELINE FORECAST
(Percentage Difference From Baseline Forecast)

Variable Definition	Alternative Forecast	1990	1995	2000
Population	Low	-1.3	-3.4	-5.5
	High	0.8	2.8	6.7
	Trend	-0.4	-1.2	-0.7
Labor Force	Low	-3.0	-5.9	-8.9
	High	2.4	5.6	8.9
	Trend	-0.1	0.3	1.0
Employment	Low	-3.8	-6.5	-9.8
	High	2.8	6.2	9.5
Trend	0.2	0.5	1.0	
Real Personal Disposable Income	Low	-6.7	-10.6	-14.8
	High	6.0	11.4	16.8
	Trend	1.8	2.7	4.2
Consumer Prices	Low	6.2	10.3	13.2
	High	-5.9	-9.9	-12.5
	Trend	3.1	2.5	-1.6
Manufacturing Employment	Low	-4.5	-6.7	-8.6
	High	4.3	6.2	7.8
	Trend	4.9	6.6	4.2

Table 9

**AVERAGE ANNUAL GROWTH RATE
SUMMARY OF TREND-GROWTH FORECAST**

Variable Definition	1986 to 1990	1990 to 1995	1995 to 2000	1986 to 2000
Population	0.41	0.11	0.55	0.35
Labor Force	0.97	0.71	1.03	0.90
Employment	1.13	0.82	1.16	1.03
Real Personal Disposable Income	2.88	2.61	2.78	2.75
Consumer Prices	5.30	4.42	4.80	4.81
Manufacturing Employment	1.38	0.65	-0.49	0.45
Food (20)	0.38	-0.61	-0.67	-0.35
Machinery (35)	3.21	-0.41	-0.42	0.61
Electrical Machinery (36)	2.73	0.80	-0.47	0.89
Motor Vehicles (371)	-1.06	0.43	0.42	0.00
Other Transportation (372.9)	0.07	0.54	-0.43	0.06

Table 10

**AVERAGE ANNUAL GROWTH RATE
SUMMARY OF LOW-GROWTH FORECAST**

Variable Definition	1986 to 1990	1990 to 1995	1995 to 2000	1986 to 2000
Population	0.20	-0.16	0.00	-0.00
Labor Force	0.22	0.02	0.23	0.15
Employment	0.11	0.19	0.34	0.22
Real Personal Disposable Income	0.66	1.56	1.51	1.23
Consumer Prices	6.09	5.80	5.74	5.86
Manufacturing Employment	-0.98	-0.13	-0.44	-0.48
Food (20)	-0.27	-0.81	-1.03	-0.73
Machinery (35)	0.65	-0.65	0.46	0.12
Electrical Machinery (36)	0.31	0.57	0.12	0.33
Motor Vehicles (371)	-3.37	0.61	-0.26	-0.83
Other Transportation (372.9)	-1.34	0.58	-0.23	-0.26

Table 11

**AVERAGE ANNUAL GROWTH RATE
SUMMARY OF HIGH-GROWTH FORECAST**

Variable Definition	1986 to 1990	1990 to 1995	1995 to 2000	1986 to 2000
Population	0.72	0.67	1.19	0.87
Labor Force	1.60	1.24	1.51	1.44
Employment	1.78	1.41	1.69	1.62
Real Personal Disposable Income	3.92	3.45	3.47	3.59
Consumer Prices	2.92	4.10	4.60	3.94
Manufacturing Employment	1.24	0.69	0.28	0.70
Food (20)	0.97	-0.25	-0.47	0.02
Machinery (35)	1.61	-0.37	0.68	0.57
Electrical Machinery (36)	1.91	0.94	0.40	1.02
Motor Vehicles (371)	-0.15	1.34	0.28	0.53
Other Transportation (372.9)	-0.35	0.77	-0.11	0.14

Table 12

SUMMARY OF TREND-GROWTH FORECAST

Variable Definition	1986	1990	1995	1986
Population	5081	5165	5194	5337
Labor Force	2531	2631	2725	2868
Employment	2348	2456	2558	2710
Unemployment Rate	6.03	5.79	5.51	5.26
Real Personal Disposable Income	51.23	57.40	65.29	74.87
Consumer Prices	315.3	387.6	481.1	608.2
Manufacturing Employment	422.9	446.7	461.4	450.3
Food (20)	45.9	46.6	45.2	43.7
Machinery (35)	30.4	34.5	33.8	33.1
Electrical Machinery (36)	48.4	53.9	56.1	54.8
Motor Vehicles (371)	33.6	32.2	32.9	33.6
Other Transportation (372.9)	36.3	36.4	37.4	36.6

Table 13

SUMMARY OF LOW-GROWTH FORECAST

Variable Definition	1986	1990	1995	2000
Population	5081	5122	5088	5080
Labor Force	2531	2553	2556	2585
Employment	2348	2358	2380	2421
Unemployment Rate	6.03	6.48	5.79	5.36
Real Personal Disposable Income	51.23	52.59	56.80	61.22
Consumer Prices	315.3	399.4	529.5	699.9
Manufacturing Employment	422.9	406.6	404.0	395.1
Food (20)	45.9	45.4	43.6	41.4
Machinery (35)	30.4	31.2	30.2	30.9
Electrical Machinery (36)	48.4	49.0	50.4	50.7
Motor Vehicles (371)	33.6	29.3	30.2	29.9
Other Transportation (372.9)	36.3	34.4	35.4	35.0

Summary*

Missourians face subtle but important changes in the basic framework of their economic lives over the balance of the 20th century. How well they adjust to these changes will in large part determine how far above or below the long-term economic trend Missouri will be by 2000. For example, Missourians face a slowing of population growth and an increasingly older population, two fundamental developments with important implications for the growth of employee earnings and household consumption patterns. They face the growing needs of their manufacturing sectors for funds to replace aging plant and equipment and the conflicting demands of households for income to support expanding consumption. In a larger sense, Missourians also face intensifying competition within the national and international economies.

The three forecasts described in some detail above (excluding the trend projections) portray three contrasting economic futures for Missouri that reflect alternate responses to these and other elements of economic transition. The **baseline forecast** assumes that Missouri will maintain its economic standing among the states by making those long-term investments in people and machines needed to sustain its present level of productiveness. While it is true that developments both in foreign markets and neighboring states can adversely influence economic life in Missouri, the baseline forecast assumes that Missouri will weather temporary economic difficulties by making its labor force more skilled, by maintaining productivity levels through improving the machines that aid human labor, and by sacrificing that amount of current consumption needed to support future growth.

The low growth forecast, however, is equally as likely as the other economic paths which could be

Table 14

SUMMARY OF HIGH-GROWTH FORECAST

Variable Definition	1986	1990	1995	2000
Population	5081	5229	5406	5735
Labor Force	2531	2697	2868	3091
Employment	2348	2520	2703	2939
Unemployment Rate	6.03	5.85	5.48	5.20
Real Personal Disposable Income	51.23	59.74	70.79	83.96
Consumer Prices	315.3	353.7	432.4	541.3
Manufacturing Employment	422.9	444.3	459.8	466.2
Food (20)	45.9	47.7	47.1	46.0
Machinery (35)	30.4	32.4	31.8	32.9
Electrical Machinery (36)	48.4	52.2	54.7	55.8
Motor Vehicles (371)	33.6	33.4	35.7	36.2
Other Transportation (372.9)	36.3	35.8	37.2	37.0

taken. The **low-growth forecast** describes an economic world in which Missourians see significant erosion in their national productivity standing. Moreover, it is a world in which events outside the state aggravate our inability to sustain our share of markets. The economic environment of the late 1980s is such that entrepreneurship languishes, that old industrial equipment is not replaced fast enough to keep its productiveness, and that the skills of Missouri workers do not improve at a pace required to stay level with many other American and foreign workers. When the sharp recession hypothesized in this worse-case scenario strikes in the early 1990s, Missouri businesses have great difficulty weathering declining demand and rising prices. Most importantly, they lack the technological capacity to regain their losses during the recovery of the mid 1990s. Missouri would greet the year 2000 hardly better than it left 1985.

If Missourians exceed the levels of productiveness described in the baseline by devoting even greater current resources to future production and if economic events outside the state support sustained economic expansion, then economic growth as described by the **high-growth forecast** becomes likely. In this possible world of a more expansive economy, machine labor increasingly replaces human labor in those production processes requiring accurate but repetitive activity. Traditionally low paying sectors (such as retail trade and services) experience substantial wage growth as a result of critical capital investment decisions and more skillful workers. Greater productiveness gives Missourians greater command over goods and services and leads many Missourians into new and better paying jobs. But here, as in the baseline forecast, the investment decisions of Missourians are just as important to realizing these predictions as are events in the economic world outside of the state.

*This summary of the Wharton forecasts was prepared by the Commission.

APPENDICES

APPENDIX I

APPENDIX I

MISSOURI SCHOOL ENROLLMENTS

Missouri enrollment patterns are a function of fertility, and fertility has fluctuated widely over the last forty years. Births rose sharply during the baby boom (1946-1964), fell sharply during the baby bust (1965-1976), and have risen again moderately in the era of the baby-boom echo. The successive effects on Missouri elementary schools, high schools and colleges were, and are, largely predictable. Baby boomers swelled elementary enrollments to an all-time high in 1970 and high school enrollments to an all-time high in 1977. College enrollments peaked in the early 1980s, as the last members of the baby boom were in their final years of school. Baby-bust students began to replace baby-boom students in the early 1970s, forcing enrollments down. Elementary enrollments fell steadily until leveling off only just recently. High school enrollments continue to decline. College enrollments appear to be on the verge of prolonged decline for the first time in history.

Future enrollments hinge on the passage of the baby bust and its slightly larger successor, the baby-boom echo (children of baby boomers), through the state's school system. Today's elementary students come primarily from the echo generation, although the last of the baby bust will not leave elementary school until the late 1980s. The echo generation likely will bring modest growth to elementary enrollments for the remainder of the century. The prospect for high school enrollments remains low until the early 1990s, when the last members of the baby bust reach college age and the first members of the baby-boom echo enter high school. The small baby-bust cohort will dominate college enrollments for the next ten years.

Annual enrollments in Missouri public and nonpublic schools since 1979 are presented in Table 1. Total enrollments fell by 5 percent between 1979 and 1984. Losses were heaviest in high school enrollments, which declined by 14 percent. High school students comprise one-fourth of all enrollments. A somewhat surprising trend in the early 1980s was the continued growth in college enrollments despite a sizable decrease in the traditional college-age population (ages

18-24). Figure 1 and Table 2 illustrate. Rising enrollments by persons over age 24 offset declining enrollments by younger students. The proportion of public college students over 24 years of age rose by nearly two percent in the three years following 1981 (to 35 percent).

College enrollments are nevertheless expected to decline in the coming decade. The 18-24 age group is projected to shrink by over 100 thousand persons (19 percent) between 1985 and 1995. If, as is expected, the traditional college-age group continues to comprise a large share of total enrollments, total enrollments should decline accordingly. Little more than one in three people aged 18 to 24 attend college, yet the group represents 65 percent of college students. The National Center for Education Statistics recently projected a 6 percent drop in national college enrollments between 1983 and 1993. Many demographers incorrectly forecasted the turnaround to occur before 1983. The long-predicted decline in college enrollments finally materialized in 1984.

A significant demographic trend in college enrollments is the increasing participation by women. Fifty-one percent of Missouri's college students were women in 1984. In comparison, women accounted for little more than a third of college enrollments in 1950. National projections indicate that women will hold this majority, largely through higher attendance by older women. Two-thirds of students 35 years of age and over are women.

Elementary and secondary enrollments correspond more closely to changes in their respective age groups (ages 5-13 and 14-17) due to higher attendance rates. Therefore, projected populations for these age groups provide a clearer picture of what elementary and secondary enrollments may be. Figure 2 and Table 3 present historic and projected changes in these age groups. After sharp decline, the drop in elementary enrollments appears to have bottomed out. Modest growth is expected. The estimated 633 thousand elementary-school-age children in 1985 were nearly 200 thousand (23 percent) fewer than their counterparts in 1970. The 5-13 age group is projected to grow by 9 percent by 1995. The

TABLE 1

MISSOURI PUBLIC AND NONPUBLIC SCHOOL ENROLLMENTS: 1979-1984
(Fall Enrollments in Thousands. Sums may vary due to rounding.)

GRADE	1984				1983				1982			
	K-8	9-12	COLL	ALL	K-8	9-12	COLL	ALL	K-8	9-12	COLL	ALL
PUBLIC	545	249	170	964	546	249	177	973	547	256	174	977
NONPUBLIC	87	30	71	188	89	30	71	190	89	31	70	190
TOTAL	632	279	241	1,152	635	280	248	1,163	636	287	244	1,167
% NONPUB	13.8	10.7	29.5	16.3	14.0	10.8	28.6	16.4	14.0	10.9	28.7	16.3

GRADE	1981				1980				1979			
	K-8	9-12	COLL	ALL	K-8	9-12	COLL	ALL	K-8	9-12	COLL	ALL
PUBLIC	553	266	173	992	567	278	165	1,010	580	294	153	1,026
NONPUBLIC	89	32	71	192	88	32	69	189	88	32	69	189
TOTAL	642	298	244	1,184	655	309	234	1,199	667	325	222	1,215
% NONPUB	13.9	10.7	29.1	16.2	13.4	10.3	29.5	15.8	13.1	9.8	31.1	15.5

Sources: Missouri DESE and National Center for Education Statistics

FIGURE 1

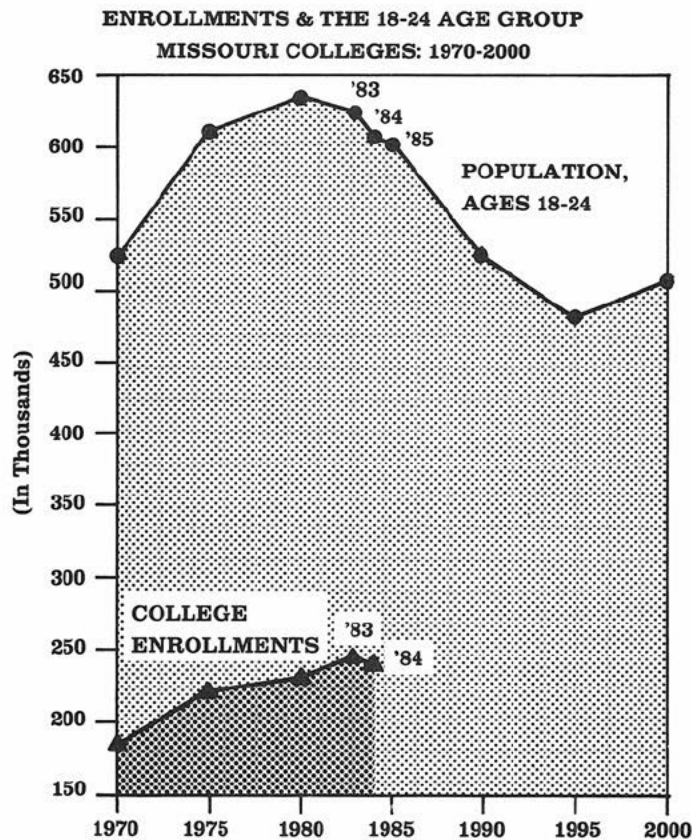
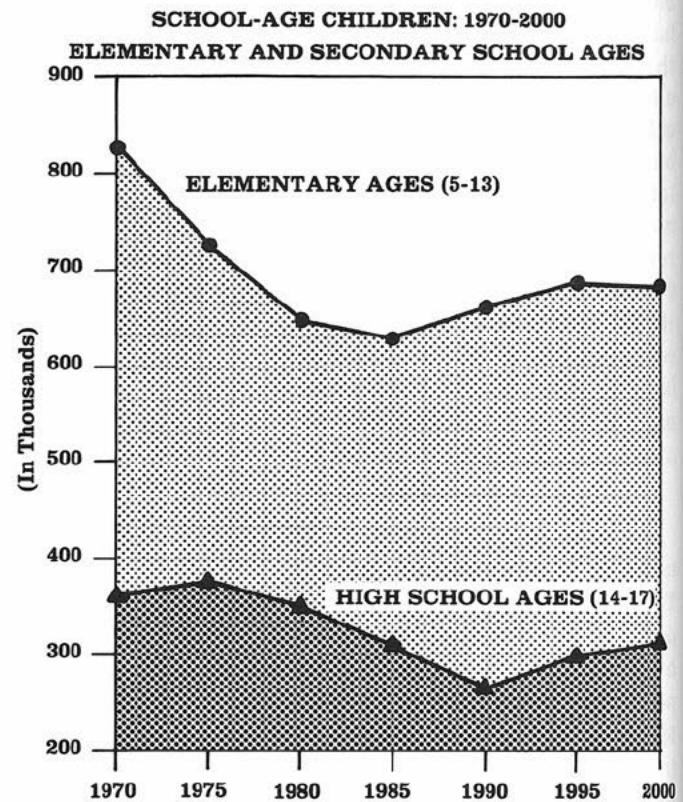


FIGURE 2



decline in high school enrollments probably will not bottom out until around 1990, when there will be an estimated 274 thousand 14-17 year-olds. This would be a drop of over 100 thousand persons (28 percent) since 1975. With the influx of baby-boom-echo students, high school enrollments should rise again in the 1990s. The high school age group is expected to grow by 12 percent between 1990 and 2000.

The relationship between public and private school enrollments is presented in Table 1 and Figure 3. There has been little change since 1970 in the proportion of Missouri students who attend private schools. This is true for all levels of instruction. Private elementary enrollments rose from 13.2 percent in 1970 to 13.8 percent in 1984. Private secondary enrollments fell from 11.7 percent in 1970 to 10.7 percent in 1984. Private college enrollments rose from 27.7 percent in 1970 to 29.5 percent in 1984.

TABLE 2

**COLLEGE ENROLLMENTS AND THE
TRADITIONAL COLLEGE-AGE POPULATION:
1970-2000
(In Thousands)**

	1970	1975	1980	1983	1984	1985	1990	1995	2000
PERSONS									
(Ages 18-24)	522	611	636	624	611	603	526	488	505
ENROLL- MENTS	184	223	234	248	241				

Sources: U.S. Bureau of the Census, National Center for Education Statistics and Missouri Division of Budget and Planning

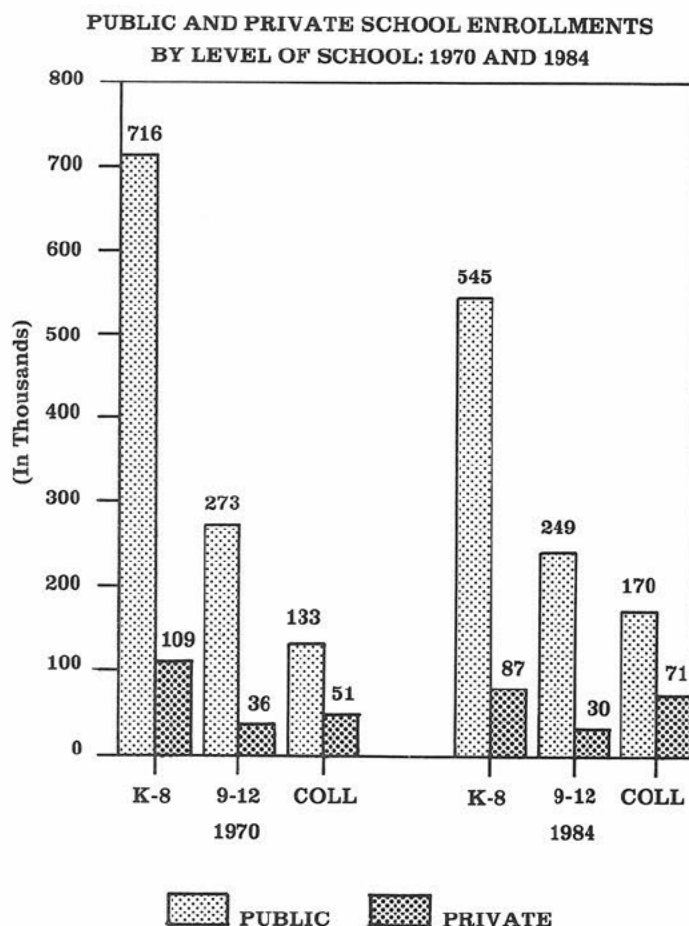
TABLE 3

**SCHOOL-AGE CHILDREN: 1970-2000
(In Thousands)**

	1970	1975	1980	1985	1990	1995	2000
ELEMENTARY							
(Ages 5-13)	827	725	658	633	668	692	688
HIGH SCHOOL							
(Ages 14-17)	356	378	350	306	274	301	308

Sources: U.S. Bureau of the Census, Missouri Department of Elementary and Secondary Education and Division of Budget and Planning

FIGURE 3



APPENDIX II

APPENDIX II

TABLE 1
MISSOURI STATE MODEL
MAJOR ECONOMIC INDICATORS: BASELINE MODEL

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Employment % SAAR	2348.3	2400.0	2437.6	2463.8	2450.9	2475.3	2505.6	2525.2	2544.4	2546.9	2548.3	2571.2	2619.5	2653.0	2683.0
Manufacturing % SAAR	422.9	431.5	436.9	436.9	425.9	439.7	434.9	436.5	433.4	432.8	426.8	419.6	433.7	434.8	432.3
Nonmanufacturing % SAAR	1817.0	1862.0	1897.5	1924.5	1914.9	1939.7	1970.8	1990.2	2010.2	2012.0	2013.3	2036.1	2081.9	2114.0	2142.4
State & Local Gov % SAAR	259.9	263.9	264.9	266.5	266.5	267.5	268.6	270.7	272.7	275.7	278.6	281.0	283.9	286.8	289.8
Federal Gov, Civ % SAAR	71.0	73.4	75.1	73.4	71.7	70.5	69.4	68.4	67.6	67.0	66.6	66.1	65.6	65.2	64.8
Federal Gov, Mil % SAAR	52.3	52.5	52.7	52.8	52.9	53.0	53.2	53.3	53.5	53.6	53.7	53.9	54.0	54.2	54.4
Household Employment % SAAR	2378.4	2427.0	2462.1	2486.8	2474.7	2497.5	2525.9	2544.3	2562.2	2564.6	2565.9	2587.4	2632.5	2663.8	2691.8
Labor Force % SAAR	2530.8	2577.8	2612.9	2634.6	2633.1	2652.6	2675.6	2693.7	2710.4	2717.1	2720.1	2741.6	2781.8	2811.5	2839.4
Unemployment Rate % SAAR	6.0	5.9	5.8	5.6	6.0	5.9	5.6	5.6	5.5	5.6	5.7	5.6	5.4	5.3	5.2
Population % SAAR	5081.2	5124.6	5159.6	5169.8	5187.3	5200.6	5209.6	5231.0	5245.8	5257.8	5261.0	5280.8	5310.7	5341.0	5373.1
Number of Households % SAAR	1896.6	1926.4	1954.5	1971.1	1983.2	2002.2	2018.4	2038.3	2054.5	2070.4	2083.7	2100.2	2123.6	2145.8	2167.3
Disposable Income % SAAR	51.2	53.6	54.6	55.3	56.4	57.8	59.2	60.7	62.1	63.6	65.5	66.5	68.5	70.1	71.9
Per Capita % SAAR	10081.6	10468.6	10582.2	10702.9	10866.7	11119.7	11362.2	11602.4	11831.9	12088.5	12443.9	12585.6	12903.1	13123.7	13376.8
Consumer Price Index % SAAR	315.3	317.6	335.1	355.5	376.0	394.6	412.4	432.2	453.8	479.9	507.5	537.6	562.9	588.3	618.4

APPENDIX II

TABLE 2
MISSOURI STATE MODEL
ESTABLISHMENT EMPLOYMENT: BASELINE MODEL

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Employment % SAAR	2348.3	2400.0	2437.6	2463.8	2450.9	2475.3	2505.6	2525.2	2544.4	2546.9	2548.3	2571.2	2619.5	2653.0	2683.0
Agriculture % SAAR	148.2	148.2	147.4	146.7	144.8	144.6	143.5	142.6	140.4	138.5	136.1	134.1	134.0	132.8	131.6
Mining % SAAR	5.9	5.8	5.7	5.5	5.3	5.2	5.0	4.9	4.8	4.7	4.6	4.6	4.6	4.7	4.7
Contract Construction % SAAR	103.9	105.4	108.6	108.7	106.7	115.0	116.0	116.6	116.8	118.1	116.3	117.3	118.7	120.2	121.7
Manufacturing % SAAR	422.9	431.5	436.9	436.9	425.9	439.7	434.9	436.5	433.4	432.8	426.8	419.6	433.7	434.8	432.3
Trans, Comm, Util % SAAR	143.6	155.1	159.0	159.7	152.2	154.8	153.4	153.6	153.9	154.4	156.0	153.5	157.0	158.2	158.7
Whsale & Retl Trade % SAAR	532.4	543.4	554.6	564.7	569.5	567.1	584.6	591.9	599.3	599.2	603.3	616.8	628.7	641.9	655.0
Wholesale Trade % SAAR	129.7	130.6	134.9	138.6	137.9	134.5	138.3	139.0	139.5	137.4	136.8	140.0	142.3	144.5	146.5
Retail Trade % SAAR	402.8	412.8	419.6	426.1	431.6	432.6	446.3	453.0	459.8	461.8	466.5	476.7	486.4	497.3	508.5
Fin, Ins, & Real Est % SAAR	125.0	129.4	131.7	134.5	136.3	138.7	140.6	142.5	144.3	145.9	146.6	147.9	149.3	150.9	152.5
Regulated Indus % SAAR	87.3	93.4	96.5	97.3	92.9	95.3	94.1	94.2	94.0	94.2	94.6	93.5	95.6	96.0	96.0
Elect, Gas, Sanitary % SAAR	22.2	22.9	23.0	22.9	22.7	22.9	22.8	22.9	23.1	23.3	23.3	23.2	23.4	23.5	23.6
Business Services % SAAR	143.8	150.1	157.9	167.7	168.8	168.0	178.7	183.6	192.4	191.5	192.1	201.4	208.4	215.6	223.4
Health Services % SAAR	178.7	181.1	182.2	185.3	191.4	194.5	201.7	206.6	212.6	215.3	218.4	224.2	229.1	233.9	238.8
Educational Services % SAAR	43.5	44.8	46.4	47.7	47.1	47.1	47.2	47.2	47.2	47.3	47.3	47.3	47.3	47.4	47.4
Other Services % SAAR	117.2	115.6	114.3	113.6	111.7	109.4	108.6	106.8	105.3	102.7	101.8	103.5	105.0	106.4	107.8

APPENDIX II

TABLE 3
MISSOURI STATE MODEL
PERSONAL INCOME: BASELINE MODEL

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Labor & Proprietors Inc % SAAR	52.3	55.6	59.5	63.7	66.9	72.2	77.1	83.1	89.3	96.3	104.0	111.9	122.0	130.9	140.6
Residence Adjustment % SAAR	-2.3	-2.3	-2.4	-2.6	-2.6	-2.7	-2.8	-2.9	-3.0	-3.1	-3.2	-3.4	-3.7	-3.9	-4.1
Personal Contributions for Social Insurance % SAAR	3.3	3.5	3.8	4.0	4.4	4.8	5.2	5.6	6.1	6.7	7.4	8.2	9.1	9.9	10.8
Div, Int, & Rent % SAAR	12.7	13.0	13.7	14.9	17.2	18.7	20.3	21.9	23.6	25.9	29.2	31.7	33.7	35.8	39.2
Transfer Payments % SAAR	10.2	10.9	11.2	12.0	13.1	13.6	14.3	15.1	16.1	17.2	18.5	19.9	21.0	22.3	23.9
Disposable Personal Inc. % SAAR	59.8	63.4	68.0	73.1	78.7	84.4	90.3	97.0	104.2	112.7	122.5	132.0	142.4	152.1	163.8
Disp Pers Inc Per Capita % SAAR	11770.7	12371.2	13173.7	14146.6	15163.0	16237.6	17332.3	18549.2	19865.5	21431.4	23291.3	24994.6	26811.3	28479.5	30491.0

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TABLE 4
MISSOURI STATE MODEL
MAJOR ECONOMIC INDICATORS: TREND MODEL

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Employment % SAAR	2348.3	2401.2	2444.7	2468.9	2455.6	2470.3	2501.7	2523.9	2547.7	2557.9	2568.1	2604.0	2646.1	2680.0	2709.9
Manufacturing % SAAR	422.9	435.2	444.2	447.8	446.7	462.5	459.9	462.4	461.3	461.4	456.4	451.4	460.1	455.5	450.3
Nonmanufacturing % SAAR	1817.0	1863.6	1901.0	1919.7	1908.8	1926.6	1959.1	1982.2	2007.7	2017.7	2027.4	2062.9	2104.0	2135.8	2164.6
State & Local Gov % SAAR	259.9	261.4	264.7	269.0	269.5	270.2	271.5	273.5	275.3	277.8	280.3	283.5	286.5	289.8	293.1
Federal Gov, Civ % SAAR	71.0	75.2	78.4	78.3	76.8	75.8	74.8	73.8	72.8	72.1	71.5	70.8	70.1	69.5	68.8
Federal Gov, Mil % SAAR	52.3	52.5	52.7	52.8	2.9	53.0	53.2	53.3	53.5	53.6	53.7	53.9	54.0	54.2	54.4
Household Employment % SAAR	2378.4	2428.0	2468.9	2491.5	2479.0	2492.9	2522.3	2543.1	2565.4	2574.9	2584.4	2618.0	2657.5	2689.1	2717.0
Labor Force % SAAR	2530.8	2580.5	2616.7	2636.4	2631.2	2642.1	2667.0	2688.5	2710.4	2724.9	2738.4	2772.7	2810.9	2842.2	2867.5
Unemployment Rate % SAAR	6.0	5.9	5.7	5.5	5.8	5.7	5.4	5.4	5.4	5.5	5.6	5.6	5.5	5.4	5.3
Population % SAAR	5081.2	5142.3	5169.0	5171.0	5165.1	5151.0	5149.5	5165.4	5177.7	5193.6	5210.2	5239.9	5269.3	5301.8	5337.1
Number of Households % SAAR	1896.6	1925.8	1950.7	1964.2	1967.	1975.7	1987.7	2005.3	2020.3	2037.5	2055.9	2076.2	2099.2	2122.1	2144.8
Disposable Income % SAAR	51.2	53.4	54.5	55.6	57.4	58.7	60.7	62.6	64.6	65.3	68.1	69.9	71.6	73.2	74.9
Per Capita % SAAR	10081.7	10378.2	10536.2	10745.1	11113.8	11404.1	11780.5	12128.7	12473.5	12571.4	13061.0	13340.0	13585.4	13815.1	14028.3
Consumer Price Index % SAAR	315.3	321.1	341.5	364.9	387.6	406.3	420.3	437.4	455.7	481.1	506.8	533.6	557.7	580.7	608.2

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TABLE 5
MISSOURI STATE MODEL
EMPLOYMENT BUSINESS/MANUFACTURING DETAIL: TREND MODEL

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Manufacturing % SAAR	422.9	435.2	444.2	447.8	446.7	462.5	459.9	462.4	461.3	461.4	456.4	451.4	460.1	455.5	450.3
Food & Kindred Prod % SAAR	45.9	46.5	46.2	46.4	46.6	46.7	46.3	45.8	45.4	45.2	44.8	44.3	44.3	44.0	43.7
Textiles % SAAR	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Apparel % SAAR	24.5	25.6	25.5	25.2	25.2	26.1	26.2	26.4	26.4	26.7	26.7	26.2	27.5	26.5	25.8
Lumber & Wood % SAAR	10.1	10.0	10.3	10.1	9.5	10.9	11.2	11.9	12.5	12.7	12.6	11.2	12.0	11.8	11.5
Furniture % SAAR	10.4	10.5	10.6	10.8	10.8	11.4	11.4	11.5	11.4	11.5	11.4	11.5	11.9	11.9	11.8
Paper Products % SAAR	13.3	13.7	14.0	14.2	14.2	14.6	14.6	14.7	14.6	14.8	14.7	14.3	14.3	14.1	13.8
Printing & Publishing % SAAR	40.8	41.7	42.5	43.0	43.2	44.3	44.3	44.6	45.0	45.3	45.5	45.9	46.9	47.2	47.4
Chemicals % SAAR	28.6	30.2	30.5	30.6	30.1	31.5	31.6	32.2	32.5	32.9	32.9	32.3	33.1	33.0	32.6
Petroleum Products % SAAR	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5
Rubber & Plastics % SAAR	12.7	13.2	13.5	14.0	14.7	14.8	14.7	14.9	14.9	14.9	14.8	14.8	14.9	14.7	14.4
Leather % SAAR	16.8	17.8	18.0	17.9	17.5	17.2	17.1	16.8	16.6	16.6	16.4	15.6	15.9	15.7	15.5
Stone, Clay, & Glass % SAAR	11.6	12.1	12.6	12.7	12.4	13.6	13.5	13.9	14.2	14.4	14.2	14.1	14.5	14.2	13.8
Primary Metals % SAAR	12.0	12.1	12.6	12.9	12.7	13.2	13.1	13.1	13.4	13.4	13.1	12.0	11.3	10.2	9.6
Fabricated Metals % SAAR	28.0	28.5	28.9	29.3	30.1	31.0	29.8	30.3	29.7	29.3	28.5	28.3	29.7	29.4	28.9

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TABLE 6
MISSOURI STATE MODEL
PERSONAL INCOME: TREND MODEL

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Labor & Proprietors Inc % SAAR	52.3	55.8	60.5	65.7	70.7	76.0	81.2	87.5	94.0	100.4	109.0	118.0	127.4	136.6	146.8
Residence Adjustment % SAAR	-2.3	-2.3	-2.5	-2.6	-2.7	-2.8	-2.9	-3.0	-3.1	-3.1	-3.3	-3.5	-3.8	-4.0	-4.2
Personal Contributions for Social Insurance % SAAR	3.3	3.6	3.9	4.2	4.6	5.0	5.5	6.0	6.6	7.1	7.8	8.7	9.6	10.4	11.3
Div, Int, & Rent % SAAR	12.7	13.2	14.1	15.5	18.4	19.8	21.5	23.3	25.2	26.5	30.3	33.2	34.9	36.5	38.7
Transfer Payments % SAAR	10.2	10.9	11.3	12.1	13.1	13.5	14.0	14.7	15.4	16.6	17.8	19.0	20.1	21.3	22.6
Disposable Personal Inc. % SAAR	59.8	63.8	69.1	75.4	82.5	88.2	94.1	101.2	108.6	115.7	126.7	137.0	146.6	156.0	166.9
Disp Pers Inc Per Capita % SAAR	11770.7	12410.1	13371.3	14579.9	15971.1	17131.5	18282.9	19584.6	20978.5	22278.5	24322.4	26150.4	27819.5	29427.5	31276.2

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TABLE 7
MISSOURI STATE MODEL
MAJOR ECONOMIC INDICATORS: LOWLINE MODEL

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Employment % SAAR	2348.3	2369.8	2389.2	2396.9	2358.2	2365.8	2377.1	2383.2	2387.3	2380.4	2370.5	2374.2	2397.6	2412.3	2421.5
Manufacturing % SAAR	422.9	418.5	421.9	420.1	406.6	418.2	411.4	411.3	406.2	404.0	396.5	387.6	399.5	399.1	395.1
Nonmanufacturing % SAAR	1817.0	1835.5	1855.5	1866.9	1835.2	1846.2	1860.8	1868.8	1875.9	1870.1	1861.9	1867.8	1891.9	1908.0	1918.5
State & Local Gov % SAAR	259.9	261.2	260.6	260.2	257.8	256.2	255.2	255.3	255.5	256.7	258.0	258.5	258.7	259.0	259.7
Federal Gov, Civ % SAAR	71.0	72.5	73.6	71.5	69.4	67.7	66.2	64.7	63.4	62.4	61.5	60.5	59.5	58.7	57.8
Federal Gov, Mil % SAAR	52.3	52.5	52.7	52.8	52.9	53.0	53.2	53.3	53.5	53.6	53.7	53.9	54.0	54.2	54.4
Household Employment % SAAR	2378.4	2398.5	2416.7	2525.0	2387.6	2394.8	2405.4	2411.1	2414.9	2408.5	2399.1	2402.6	2424.7	2438.4	2447.1
Labor Force % SAAR	2530.8	2556.0	2572.3	2575.9	2552.8	2552.0	2555.7	2558.8	2560.3	2556.4	2548.2	2552.5	2568.3	2577.8	2585.4
Unemployment Rate % SAAR	6.0	6.2	6.1	5.9	6.5	6.2	5.9	5.8	5.7	5.8	5.9	5.9	5.6	5.4	5.4
Population % SAAR	5081.2	5124.7	5146.1	5135.1	5121.6	5102.1	5086.5	5086.7	5082.6	5079.7	5071.4	5074.6	5072.7	5073.5	5079.9
Number of Households % SAAR	1896.6	1916.2	1937.9	1945.5	1945.0	1950.6	1956.5	1967.3	1975.3	1984.5	1992.4	2001.6	2011.4	2020.9	2031.2
Disposable Income % SAAR	51.2	51.9	52.2	52.3	52.6	53.4	54.1	55.0	55.8	56.8	58.1	58.4	59.5	60.3	61.2
Per Capita % SAAR	10081.6	10129.9	10144.5	10194.0	10267.3	10467.4	10632.6	10815.6	10974.4	11174.7	11449.0	11506.0	11726.2	11880.8	12052.2
Consumer Price Index % SAAR	315.3	326.1	348.7	373.8	399.4	423.3	446.3	471.0	497.9	529.5	562.5	599.1	631.1	663.2	699.9

APPENDIX II

TABLE 8
MISSOURI STATE MODEL
EMPLOYMENT/BUSINESS/MANUFACTURING DETAIL: LOWLINE MODEL

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Manufacturing % SAAR	422.9	418.5	421.9	420.1	406.6	418.2	411.4	411.3	406.2	404.0	396.5	387.6	399.5	399.1	395.1
Food & Kindred Prod % SAAR	45.9	45.9	45.4	45.5	45.4	45.6	45.0	44.5	43.9	43.6	43.0	42.4	42.3	41.8	41.4
Textiles % SAAR	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Apparel % SAAR	24.5	24.3	23.6	22.7	21.5	21.6	21.0	20.7	20.2	20.0	19.6	18.4	19.2	18.3	17.4
Lumber & Wood % SAAR	10.1	8.5	8.3	7.8	6.4	7.3	7.2	7.4	7.4	7.2	7.0	5.4	6.3	6.7	6.8
Furniture % SAAR	10.4	10.1	10.1	10.0	9.6	10.1	9.9	9.9	9.7	9.7	9.6	9.3	9.8	9.9	9.9
Paper Products % SAAR	13.3	13.3	13.4	13.5	13.2	13.4	13.3	13.3	13.1	13.1	12.9	12.5	12.7	12.5	12.3
Printing & Publishing % SAAR	40.8	41.0	41.5	41.7	41.6	42.2	41.8	41.7	41.7	41.7	41.5	41.5	42.2	42.3	42.3
Chemicals % SAAR	28.6	29.2	29.3	29.2	28.2	29.3	29.1	29.4	29.5	29.9	29.8	29.0	29.9	29.9	29.6
Petroleum Products % SAAR	1.5	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.3
Rubber & Plastics % SAAR	12.7	12.8	12.9	13.2	13.5	13.4	13.1	13.1	12.9	12.7	12.5	12.3	12.5	12.3	12.0
Leather % SAAR	16.8	17.4	17.2	16.8	15.7	15.2	14.6	14.1	13.7	13.4	12.9	11.7	12.4	12.1	11.7
Stone, Clay, & Glass % SAAR	11.6	11.3	11.	11.3	10.1	11.3	11.0	11.0	10.9	10.9	10.7	10.2	11.0	11.0	10.7
Primary Metals % SAAR	12.0	11.5	11.6	11.6	10.7	10.6	10.1	10.0	9.8	9.6	9.3	8.7	8.8	8.7	8.4
Fabricated Metals % SAAR	28.0	26.6	26.6	26.7	26.1	26.9	25.7	26.3	25.5	24.9	24.0	23.4	25.2	25.7	25.5

APPENDIX II

TABLE 9
MISSOURI STATE MODEL
PERSONAL INCOME: LOWLINE MODEL

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Labor & Proprietors Inc % SAAR	52.3	55.0	58.8	62.7	65.5	70.5	75.1	80.7	86.5	93.0	100.0	107.0	115.8	123.4	131.6
Residence Adjustment % SAAR	-2.3	-2.3	-2.4	-2.5	-2.6	-2.7	-2.8	-2.8	-2.9	-3.0	-3.2	-3.4	-3.6	-3.8	-4.0
Personal Contributions for Social Insurance % SAAR	3.3	3.5	3.8	4.0	4.3	4.7	5.0	5.5	5.9	6.5	7.1	7.8	8.6	9.3	10.0
Div, Int, & Rent % SAAR	12.7	12.9	13.7	14.9	17.2	18.8	20.3	21.9	23.6	26.0	29.3	31.7	33.7	35.8	39.1
Transfer Payments % SAAR	10.2	11.0	11.3	12.2	13.4	13.9	14.7	15.5	16.6	17.8	19.1	20.6	21.7	23.1	24.6
Disposable Personal Inc. % SAAR	59.8	62.9	67.5	72.7	77.8	83.5	89.1	95.7	102.6	110.8	120.2	128.9	138.3	147.1	157.6
Disp Pers Inc Per Capita % SAAR	11770.7	12279.9	13125.7	14149.5	15196.2	16370.8	17520.2	18810.3	20178.4	21811.8	23705.1	25404.7	27259.3	28999.2	31025.1

APPENDIX II

TABLE 10
MISSOURI STATE MODEL
MAJOR ECONOMIC INDICATORS: HIGHLINE MODEL

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Employment % SAAR	2348.3	2433.9	2489.6	2528.8	2519.5	2556.1	2601.9	2642.1	2684.8	2703.1	2722.1	2765.9	2830.3	2885.5	2938.8
Manufacturing % SAAR	422.9	444.6	452.1	453.6	444.3	459.9	456.8	460.1	459.1	459.8	454.8	449.1	465.0	467.5	466.2
Nonmanufacturing % SAAR	1817.0	1891.7	1942.7	1980.0	1972.6	2008.2	2053.1	2090.7	2131.3	2145.6	2162.0	2202.8	2262.2	2313.0	2361.4
State & Local Gov % SAAR	259.9	266.9	269.7	273.0	274.2	276.1	278.8	283.0	287.7	293.5	298.6	303.7	309.0	314.4	320.4
Federal Gov, Civ % SAAR	71.0	74.4	76.5	75.3	74.0	73.3	72.6	72.0	71.6	71.5	71.5	71.4	71.3	71.3	71.4
Federal Gov, Mil % SAAR	52.3	52.5	52.7	52.8	52.9	53.0	53.2	53.3	53.5	53.6	53.7	53.9	54.0	54.2	54.4
Household Employment % SAAR	2378.4	2458.8	2511.0	2547.6	2538.9	2573.2	2616.1	2653.7	2693.6	2710.6	2728.4	2769.3	2829.2	2880.7	2930.3
Labor Force % SAAR	2530.8	2605.2	2657.7	2693.4	2696.6	2726.3	2765.5	2802.1	2843.3	2867.8	2888.0	2931.1	2989.0	3039.6	3090.9
Unemployment Rate % SAAR	6.0	5.6	5.5	5.4	5.8	5.6	5.4	5.3	5.3	5.5	5.5	5.5	5.4	5.2	5.2
Population % SAAR	5081.2	5148.5	5193.4	5213.5	5228.9	5237.1	5252.5	5290.1	5348.0	5406.1	5443.0	5509.7	5580.1	5652.5	5735.2
Number of Households % SAAR	1896.6	1937.6	1973.9	1998.8	2014.3	2035.5	2058.4	2088.7	2117.6	2147.0	2168.6	2198.4	2232.2	2265.0	2300.0
Disposable Income % SAAR	51.2	55.4	57.1	58.4	59.7	61.8	63.9	66.2	68.6	70.8	73.6	75.4	78.4	81.1	84.0
Per Capita % SAAR	10081.6	10764.6	10995.3	11192.8	11424.8	11804.8	12164.5	12522.4	12822.8	13095.2	13518.0	13688.5	14054.0	14347.4	14639.2
Consumer Price Index % SAAR	315.3	309.1	321.6	337.5	353.7	367.5	380.6	395.4	411.6	432.4	454.5	478.7	498.1	517.1	541.3

APPENDIX II

TABLE 11
MISSOURI STATE MODEL
EMPLOYMENT BUSINESS/MANUFACTURING DETAIL: HIGHLINE MODEL

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Manufacturing % SAAR	422.9	444.6	452.1	453.6	444.3	459.9	456.8	460.1	459.1	459.8	454.8	449.1	465.0	467.5	466.2
Food & Kindred Prod % SAAR	45.9	47.3	47.2	47.5	47.7	48.1	47.9	47.6	47.4	47.1	46.6	46.2	46.4	46.2	46.0
Textiles % SAAR	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Apparel % SAAR	24.5	26.7	26.9	26.5	25.8	26.7	26.6	26.9	27.1	27.3	27.3	26.5	28.4	28.0	27.6
Lumber & Wood % SAAR	10.1	11.5	11.9	11.6	10.4	11.4	11.4	11.7	11.9	12.0	11.9	10.5	11.8	12.5	12.6
Furniture % SAAR	10.4	10.7	10.7	10.6	10.3	10.9	10.8	10.8	10.8	10.8	10.8	10.6	11.1	11.3	11.3
Paper Products % SAAR	13.3	14.1	14.4	14.6	14.4	14.8	14.7	14.8	14.8	14.8	14.7	14.4	14.7	14.6	14.5
Printing & Publishing % SAAR	40.8	42.4	43.4	44.0	44.3	45.5	45.5	45.8	46.3	46.8	47.1	47.4	48.6	49.1	49.5
Chemicals % SAAR	28.6	31.0	31.6	31.8	31.2	32.7	32.8	33.4	33.8	34.5	34.6	34.1	35.3	35.6	35.7
Petroleum Products % SAAR	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Rubber & Plastics % SAAR	12.7	13.4	13.7	14.1	14.6	14.7	14.5	14.6	14.6	14.5	14.4	14.3	14.6	14.6	14.3
Leather % SAAR	16.8	18.2	18.4	18.2	17.2	16.9	16.5	16.2	16.0	15.7	15.3	14.2	15.2	15.1	14.8
Stone, Clay, & Glass % SAAR	11.6	12.5	13.0	12.9	11.9	13.2	13.0	13.3	13.3	13.5	13.5	13.2	14.1	14.2	14.1
Primary Metals % SAAR	12.0	11.7	11.7	11.8	10.9	11.0	10.7	10.8	10.8	10.9	10.7	10.2	10.5	10.5	10.4
Fabricated Metals % SAAR	28.0	29.3	29.1	29.3	29.1	30.1	29.1	20.7	29.1	28.7	28.0	27.4	29.2	29.6	29.4

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TABLE 12
MISSOURI STATE MODEL
PERSONAL INCOME: HIGHLINE MODEL

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Labor & Proprietors Inc % SAAR	52.3	56.2	60.2	64.5	67.6	72.9	78.0	84.4	91.1	98.4	106.6	115.2	126.0	135.9	147.0
Residence Adjustment % SAAR	-2.3	-2.3	-2.5	-2.6	-2.6	-2.7	-2.8	-2.9	-3.0	-3.1	-3.2	-3.5	-3.7	-3.9	-4.2
Personal Contributions for Social Insurance % SAAR	3.3	3.6	3.9	4.1	4.4	4.8	5.2	5.7	6.3	6.9	7.6	8.	9.5	10.3	11.3
Div, Int, & Rent % SAAR	12.7	13.1	13.7	14.7	16.9	18.4	19.9	21.5	23.3	25.7	29.1	31.8	33.9	36.2	39.8
Transfer Payments % SAAR	10.2	10.8	11.0	11.7	12.7	13.1	13.7	14.5	15.4	16.4	17.7	19.1	20.1	21.3	22.8
Disposable Personal Inc. % SAAR	59.8	63.8	68.3	73.3	78.6	84.2	90.1	97.1	104.7	113.4	123.7	133.7	144.6	144.1	168.0
Disp Pers Inc Per Capita % SAAR	11770.7	12393.7	13154.0	14068.0	15024.0	16083.9	17157.7	18357.2	19579.5	20969.9	22717.6	24272.4	25916.3	27443.7	29293.9

APPENDIX III

APPENDIX III

COMMISSIONERS' BIOGRAPHIES

Gracia Yancey Backer

Gracia Yancey Backer is serving her third term in the Missouri House of Representatives. She is a member of the following House Committees: mental health appropriations; (vice-chair) motor vehicle and traffic regulations; (vice-chair) correctional institutions; budget; and the joint committee on correctional institutions and problems. Prior to her election in 1982, Backer served as Executive Secretary to the Missouri League of Nursing Home Administrators, Inc. From 1977 until 1981, she was Executive Secretary of the Missouri Highway Reciprocity Commission, and she has previously served as an administrative assistant to State Senators Don Manford and Jack Gann.

Francis "Bud" Barnes, J.D.

Barnes was born in 1918 in St. Louis. He attended the University of Missouri-Columbia and Washington University receiving both his B.A. and his L.L.B. He served in the U.S. Army during World War II. Barnes, a lawyer, was an Assistant City Counselor for St. Louis City, the attorney for a container corporation, and senior vice-president of a manufacturing corporation. He is a former president of the Missouri State Historical Society and a trustee of the Clifford Willard Gaylord Foundation. He received the *St. Louis Globe Democrat* Meritorious Service Award for the 79th and 82nd General Assemblies. He was elected to the House in 1976 and continuously re-elected since that time.

Hector Barreto

Barreto was born in Mexico City, Mexico. He was raised and educated in Guadalajara, Jalisco, Mexico. He moved to the United States in 1958 and has been active in the business and civic communities. He served as the President of both Camino Real General Construction and Sol International, Inc. He is also the owner of El Patio Tile Company. Currently, Barreto is serving as the President of the U.S. Hispanic Chamber of Commerce and Chairman of the National Republican

Hispanic Assembly. He is the Past President of the Kansas City Hispanic Chamber of Commerce, the National Economic Development Association, and the Westside Local Development Company in Kansas City. Barreto served on President Reagan's transition team from 1981 to 1982 and was a delegate to the White House Conference on Small Business in 1980. Mr. Barreto also served on the boards of the Heart of America United Way, the Ronnie Millsap Foundation, and the Kansas City Area Private Industry Council.

Jay Barton, Ph.D.

Jay Barton, a University of Missouri graduate, was named Vice-President for Academic Affairs of the University of Missouri system in February of 1985. He earned Bachelor of Science, Master of Science, and Doctor of Philosophy degrees in zoology from the University of Missouri. He served with the U.S. Field Artillery in the Pacific from 1943 to 1946. Before taking up his administrative duties at the University of Missouri, Barton served as President of the University of Alaska system for five years and as Provost and Vice-President of Academic Affairs at West Virginia University for 11 years. Barton was awarded the National Science Foundation Fellowship for research at the Biological Institute of the Carlsberg Foundation in Denmark and a Fulbright Senior Scientist Travel Award to lecture at universities in Italy. He participated in a National Science Foundation-sponsored science development program in India and served on the Commission of Undergraduate Education in the Biological Sciences, a NSF-supported curriculum project. For a decade, he served on the Executive Committee and as Chairman of the Board of BSCS, Inc.

Muriel Battle, Ph.D.

Dr. Battle is currently the principal of West Junior High School in Columbia, Missouri. She has served as a teacher, an elementary school principal, an assistant principal, and a department chairperson in elementary schools. She is a member of a number of professional organizations including the International Reading Association, the Missouri Association of Secondary School Principals, the National Association of

Secondary Schools, Phi Delta Kappa, and the Association for Supervision and Curriculum Development. Battle currently chairs the Board of Curators at Lincoln University. In 1985, she served as a member of the North Central Evaluation Team in the Panama Canal Zone.

Lance G. Beshore, Ph.D.

Beshore is the Staff Vice-President for Public Affairs and Government Relations for Leggett and Platt, Inc. He received his Ph.D. from the University of Colorado, his M.A. from Penn State University, and his B.A. from Westminster College. He has served as an instructor in political science at both the University of Colorado and at Pennsylvania State University. He is a former tennis professional and has traveled worldwide.

Jane Rogers Black

Jane Black is a resident of Burlington Junction and has served thirty years on the staff of the auxiliary program of Missouri Girls State at William Woods College in Fulton. She is currently serving her 12th year as director. She is active in civic affairs and volunteer activities including the Nodaway County United Way Board, Nodaway County American Red Cross, the St. Francis Hospital Advisory Board, and three nursing homes in Maryville. She and her husband live on a farm east of Burlington Junction. Mrs. Black is a member of the Missouri West Conference of the United Methodist Church and a certified lay speaker.

Roy Blunt

Blunt was elected Missouri's thirty-second Secretary of State on November 6, 1984. Prior to his election as Secretary of State, he served twelve years as County Clerk and as the chief election authority in Springfield and Greene County. He has served as Chairman of the Missouri Housing and Development Commission. Blunt taught history and government at the secondary and college levels. Blunt has authored and co-authored several publications.

Duane D. Christensen

Christensen is the Senior Vice-President and Director of Corporate Communications for Maritz,

Inc., St. Louis. Prior to joining Maritz twenty-six years ago, he spent six years with Phillips Petroleum Company in sales. He was employed as a radio announcer at KBMU in Utah, was sports editor at the *Herald Journal* in Logan, Utah, and later with the *Desert News* in Salt Lake City, Utah. He is currently the Chairman of the Community Services Division and a member of the Executive Committee of the United Way of Greater St. Louis. He also served as Chairperson of the Private Industry Council of St. Louis, is President of the Greater St. Louis Metropolitan Philanthropic Association, and is a member of the Executive Committee of the Higher Education Center of St. Louis.

Ellen R. Conant

Conant is the elected Third District Councilwoman in St. Louis County. She has served as Chairman of the Council. Conant is also a member of various boards of directors including the St. Louis Regional Health Care Corporation, St. Louis University, the United States National Senior Olympics, and the Urban League of Metropolitan St. Louis. She is the St. Louis County Representative for the Missouri Association of Counties and is on the lay advisory board of the St. Louis Metropolitan Medical Society.

Claudine B. Cox, Ph.D.

Dr. Cox is an economist and portfolio manager from Springfield, Missouri. She serves on the executive board of UNICEF in New York City, and she is on the boards of Drury College, William Woods College, and Center Bank of Springfield. Cox has long been involved in international affairs and travels extensively. She and her husband are patrons of the Lester E. Cox Medical Center, a major non-profit hospital. Her husband serves on the Board of Directors of Trans-World Airlines.

William H. Danforth, M.D.

Dr. Danforth is the Chancellor of Washington University in St. Louis. He also serves as a Professor of Internal Medicine at the University. He attended Westminster College, and is a graduate of Princeton University and Harvard Medical School. He has received numerous honorary

degrees from universities and colleges across the nation and has been honored by many awards, such as the Newton D. Baker Award in 1967, the *St. Louis Globe Democrat* Man of the Year Award in 1978, and the Human Relations Award by the American Jewish Committee — St. Louis Chapter in 1980. He serves on the board of directors for Ralston Purina and McDonnell Douglas Corporation.

Caroline A. Ehney

Ehney is a resident of Kansas City where she owns nine separate design-related shops, including "Lauren and Me", a children's clothing and accessories store. She is an interior designer and former school teacher. In 1985, she received the Interior Contract Designer and Interior Residential Designer of the Year Awards. Ehney is a graduate of the University of Missouri at Columbia.

Edward M. Finkelstein

Finkelstein is President of Union Communications Corporation, and is the publisher of the *St. Louis Labor Tribune*. He is a graduate of the University of Missouri-Columbia. Upon graduation, he went on active duty with the United States Air Force as a second lieutenant. He served as a public information officer with the Strategic Air Command and later as Director of Information with SAC's Upper Heyford Air Force Base near Oxford, England. He returned to the United States as a captain receiving the Air Force Commendation Medal for outstanding service in England. He has served as Public Relations Director and Labor Liaison for the Regional Industrial Development Corporation and is the founder of Union Communications Corporation, a communications agency serving the public relations and communication needs of companies, non-profit organizations, political bodies, government leaders, trade unions and trade associations. He is a member of the St. Louis University President's Advisory Council, and is the past chairman of the Board for the St. Louis Chapter of the National Juvenile Diabetes Foundation.

Donald Fischer

Mr. Fischer is active in farming and agribusiness in Corder, Missouri. He is currently serving as Vice-President of the Missouri State

Farm Bureau. He also serves as the Chairman of the Missouri State Soil and Water Districts Commission, and is a member of the Governor's Agricultural Advisory Committee.

Steven W. Gildehaus

Since 1980, Gildehaus has been the Mayor of the City of Grain Valley. He is also the owner and broker of Sterling National Real Estate Corporation. Gildehaus is a member of a partnership involved in commercial and residential construction and remodeling. He is a member of the Private Industry Council, the Suburban Mayors Association, the Grain Valley Area Chamber of Commerce, the Farm and Land Institute, and the Jackson County 21st Century Commission.

Meyer L. Goldman

Goldman received his B.A. from Washington University and his Master of Science (psychology) from Northwestern University. He has also studied at the University of Colorado and Harvard University. He is a retired colonel of the United States Army, and a graduate of the U.S. Army Command and General Staff College. He is the founder of Beacon Printing and Publishing and the *Kansas City Labor Beacon*. He is also employed as a health industry consultant for Prime Health, a health maintenance organization. He has served as a member of the Governor's Task Force on Education and the Governor's Task Force on Higher Education. Goldman is a former member of the Missouri Advisory Committee to the U.S. Civil Rights Commission. He is currently a member of the board of the Kansas City Labor-Management Council, Kansas City Consensus, and is a member of the AFL-CIO. Goldman is also Past Vice-President and a member of the Truman Medical Center's Board of Governors.

David Haggard

David Haggard is active in farming and agribusiness in the Steele, Missouri area. He is President of the American Soybean Association. From 1978 to 1984, he was a member of the Governor's Advisory Council on Agriculture. He also serves as the Chairman of the University of Missouri Delta Center Advisory Committee and

is a trustee of the University of Missouri College of Agriculture Foundation. In addition, Haggard serves on the Missouri Coordinating Board for Higher Education, and is Vice-President of the University of Missouri Agriculture Alumni Association.

Jerry M. Hunter, J.D.

Hunter is currently the Director of the Missouri Department of Labor and Industrial Relations. Prior to his appointment to this position by Governor John Ashcroft, he was employed as labor counsel by Kellwood Company in St. Louis. Hunter has also served as a field attorney with the National Labor Relations Board, as a senior trial attorney with the U.S. Equal Employment Opportunity Commission, and a law clerk with the Missouri Court of Appeals — Eastern Division. He received his B.A. in history and government from the University of Arkansas and his Juris Doctorate from Washington University School of Law. He is a member of the American Bar Association, Phi Alpha Delta Legal Fraternity, and the Jefferson City Chamber of Commerce. He is also a board member of the Missouri Corporation for Science and Technology and has been a volunteer for the United Way, Big Brothers and Big Sisters of Greater St. Louis, and the St. Louis Area Council of the Boy Scouts of America, Inc.

Anne Johnson, D.D.S.

Dr. Johnson is currently in private practice in the Kansas City area. Dr. Johnson provides on-the-job training for dental assistants and she is a mentor for high school and college students interested in health careers and for dental students at the University of Missouri-Kansas City Dental School. Dr. Johnson was selected one of the top most influential blacks in 1985 by the *Kansas City Globe* and received the 1983 Woman of the Year Award from the High Achievers Chapter of the American Business and Professional Women's Association. She is presently serving as a board member of the Gillis Home for Children and is a member of several dental and health associations.

Al Kemp

Al Kemp serves as the Regional Director of the U.S. Department of Health and Human Services

(HHS). As Regional Director and a member of the Senior Executive Service of the U.S., Kemp heads a department with 5,500 employees. After serving as an aide to U.S. Senator John G. Tower, from 1977 to 1981, Kemp served as Assistant to the President and Director of Marketing for T.G. Bancshares, a St. Louis holding company. He was on active duty with the U.S. Army Intelligence from 1969 to 1972, serving as Director of the 5th U.S. Army Language School. He received a B.A. degree in Spanish and economics at Brigham Young University in 1968, and a Masters degree in public administration. Kemp is immediate past chairman of the Greater Kansas City Federal Executive Board (FEB). From 1983 to 1985, he served as the principal spokesman for the FEB which comprises 111 federal agencies and represents 35,000 civilian and military employees.

Clyde G. Lear

Lear is the President and Chief Executive Officer of Learfield Communications Inc., headquartered in Jefferson City. He received his B.A. from Central Methodist College in 1966 and a M.A. in journalism from the University of Missouri in 1968. He has served as President and a member of the Board of Trustees of Memorial Community Hospital. He is Secretary and member of the Board of Curators of Central Methodist College. In 1986, Lear was elected to, and served as chairman of, the Jefferson City Charter Commission. In 1975, he was presented with the Pacesetter Award by the Missouri Chamber of Commerce.

Thomas W. McCarthy, J.D.

McCarthy was born in 1945 in St. Louis. He is a graduate of St. Louis University High School, St. Louis University, St. Louis University Graduate Business School and School of Law. He is former law clerk to the Missouri Supreme Court. He is a member of the St. Louis Metropolitan and Missouri Bar Associations, the American Arbitration Association, and Alpha Sigma Nu. He was elected to the House in 1980 and then elected to the Missouri Senate in 1982.

James L. Mathewson

Mathewson was born in 1938 in Warsaw, Missouri. He was educated in the Warsaw Public

Schools, graduating in 1955. He attended Redding Junior College and California State University. He is a real estate appraiser and has served in the Army. Mathewson was elected to the House in 1974 and re-elected in 1976 and 1978. He was elected in 1980 to the Missouri Senate and was re-elected in 1984. He was elected Senate Majority Floor Leader in 1984 and was re-elected to that position in 1986.

Jane Meyer

Jane Meyer is the Station Manager of Radio Station KTXR in Springfield. She is also an owner and officer in Meyer Communications, a holding company for radio stations in four Missouri communities: Springfield, Fulton, Lexington, and Kennett. Her background also includes experience as a high school teacher, college instructor, and news reporter. Meyer has a B.S. in business education from the University of Missouri-Columbia. She is a member of the Springfield Housing Authority Board and the Springfield Symphony Guild, and the Planning Commission for the proposed Performing Arts Center in Springfield.

John H. Poelker

Poelker is a consultant to the St. Louis Regional Commerce and Growth Association (RCGA) and serves as a member of the board of several profit and not-for-profit organizations. He has served as Executive Director of the Bi-State Development Agency, and Vice-President of RCGA. Poelker has been vice-president of a construction company based in St. Louis. From 1973 to 1977 he was the Mayor of the City of St. Louis. Prior to that time he had served as Comptroller and Assessor for the City of St. Louis, and from 1942 to 1953 was a special agent for the FBI.

William A. Powell

Powell, a long-time Missouri agribusiness executive, was appointed to serve as Region Seven Administrator for the U.S. Small Business Administration in 1981. Prior to that time, Mr. Powell was President of Powell Agri-Industries, a family farming corporation in Princeton, Mis-

souri. He has been active in many state and national agribusiness associations. From 1968 to 1981, he served as President of the Mid-America Dairymen, Inc. whose membership includes 12,000 dairy farmers in 13 states. Since 1973, he has served on the Executive Committee of the National Milk Producers Federation, including a term as Federation president.

John H. Qualls, Ph.D.

Qualls is Manager of Marketing Research for Monsanto Chemical Company. Dr. Qualls joined Monsanto in 1966 as a senior mathematician in the Management Science Department. Various assignments included a period in Brussels, Belgium, with the company's New Enterprise Division. Prior to his current assignment, Dr. Qualls was manager of economic forecasting in Monsanto's Office of Economic Analysis. His educational background includes a Bachelor of Science in Engineering Science from Washington University in St. Louis, a M.B.A. from Harvard Business School, and a Ph.D. in economics from St. Louis University. He is a member of the *Purchasing Magazine* Board of Economists, the Missouri Chamber of Commerce Education Committee, and the Harvard Industrial Economists Group.

Phillip Schreiber

Mr. Schreiber is President of Sachs Properties, Incorporated, a real estate development corporation in the St. Louis area. He graduated from the University of Vermont in 1960 and has studied at the University of Massachusetts and Washington University. Schreiber was a captain in the U.S. Air Force with the Air Research and Development Command and was involved in the testing and studies for the manned space program. He has served as Vice-President of the National Association of Industrial and Office Parks, is a member and past president of the Creve Coeur Chamber of Commerce, and First Vice-President of the Chesterfield Chamber of Commerce. He is currently a member of the board of the Mark Twain Bank, the West County Y.M.C.A., CORO, and the State Board of Architects, Engineers, and Land Surveyors.

Burl E. Self, Jr., Ed.D.

Dr. Self is currently an Associate Professor of Planning at Southwest Missouri State University in Springfield. He also is active as a consultant in marketing research, economic development, and comprehensive planning. He is active in real estate development in the Springfield area as well. Self has been involved in many special projects as a consultant or researcher including developing a Wildlife Harvest Information System for the British Columbia Fish and Wildlife Branch; comprehensive plans for the Creek, Seneca-Cayuga, Kiowa and Crow Tribes; and various socio-economic needs assessments for local and state agencies.

APPENDIX IV

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COMMISSIONED PAPERS AND STUDIES

"Baseline and Alternative Forecasts to the Year 2000: U.S. and Missouri", Wharton Econometric Forecasting Associates, Inc.

"Rural Missouri in Transition", Eric Thompson and Dr. Robert Glenn

"Natural Resources and Economic Development", Fred Lafser

"Procuring Rewarding Opportunities From Information and Training", David W. Stevens, Ph.D.

"Missouri Education in the 1990's: An Agenda for Accomplishment", Raymond F. Reisler, Ed.D.

"Teachers for the 21st Century: Report of the Task Force on Teacher Education", W.R. Miller, Ed.D., and the Task Force on Teacher Education

"Microcomputers and High Technology", Dr. James R. Layton

"Innovative Housing Responses", Peter W. Salsich, Jr., J.D., St. Louis University

"Women and Children in the 21st Century", Martha M. Ozawa, Ph.D., Washington University

APPENDIX V

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OTHER MAJOR STUDIES AND PAPERS

- "Issues Affecting Missouri's Ability to Maintain and Create Jobs", Missouri Department of Economic Development
- "Employment for the Elderly", Missouri Alliance of Administrators of Area Agencies on Aging
- "Disability - Challenge - Change", Richard C. Powell, Governor's Committee on the Handicapped
- "Preparing for the Next Century in Missouri's Public Schools: Educational Issues for the Year 2000", Missouri Department of Elementary and Secondary Education
- "The Missouri Energy Response for the Year 2000", Division of Energy, Department of Natural Resources
- "Food and Kindred Products", Research Section, Department of Economic Development
- "A Profile of Missouri's Future Capital Needs", William Beach, Division of Budget and Planning, Office of Administration
- "Missouri Demographic and Economic Profile: 1987 - 2000" Ryan Burson and William Beach, Division of Budget and Planning, Office of Administration
- "Education Issues and Choices: A Perspective for the Missouri Opportunity 2000 Commission", Conference on Education
- "Educational Issues", Thomas J. White Foundation
- "Long-term Health Care", Missouri Alliance of Administration of Area Agencies on Aging
- "The Changing State Role in Indigent Health Care", Missouri Department of Health
- "Missouri's Changing Health Care Systems", Missouri Department of Health
- "The Impact of Healthier Lifestyles", Missouri Department of Health
- "Housing 2000: Need, Impact, and Opportunities", Missouri Housing Development Commission
- "Missouri's Ethanol Industry", Missouri Corn Growers Association
- "Women and Economic Development"; "Social Security"; and other papers, Martha M. Ozawa, Ph.D., Washington University
- "Import and Export Conditions for Missouri Business", Dr. Burl E. Self, Jr.
- "Latin America Economic and Demographic Profiles: Export Options", Dr. Burl E. Self, Jr.
- "Missouri Opportunity 2000 Commission Summary Report: Public Comments Regarding evaluation of Current Socio-Economic Conditions and Future Needs", Dr. Burl E. Self, Jr.
- "Briefing Paper for the Education Committee", Dr. W.R. Miller
- "Catholic Social Teaching and Economic Development in the State of Missouri", Missouri Catholic Conference

SPECIAL CREDITS

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The Missouri Press Association and many of its members participated in a state-wide newspaper questionnaire project. This project allowed hundreds of individuals to provide written input to the Commission which was useful in analyzing many of the issues which were being considered. Southwest Missouri State University provided staffing and computer capabilities to facilitate the processing of all the information that was gained through the newspaper questionnaire.

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Dr. Robert Blaine	Blue Springs High School
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Gene Boesch	High Tech Incubation Center
Lee Borage	Southwestern Bell, Inc.
Bill Boyd	
Darlene Bradford	Greater Kansas City Community Foundation
William Bradshaw	University of Missouri-Columbia
Dr. John Brandel	University of Minnesota
Dr. Steven Breckon	Linn Technical College
Dr. Robert Breitenbach	University of Missouri-Columbia
Reverend Dennis Brodeur, Ph.D.	Sisters of St. Mary's Health Care System
Charles Brown	Warford Elementary School
Russell Brown	George K. Baum & Company
Ken Burns	Southwestern Bell
Ryan Burson	Missouri Budget and Planning

Rex Campbell
 Earl Cannon
 Bill Carner
 Ken Carter
 Tom Carter
 Joe Cavato
 Luther Chandler
 Myra Christopher
 Dr. Don Claycomb
 Jerry Coffey
 Royal Cooper
 Bruce Cornett
 Dr. Claudine Cox
 Lester E. Cox Medical Center
 Dr. Shirley Crenshaw
 Penny Curtis
 Louis DeFeo
 Tom Deuschle
 Melanie DiPietro, S.C.
 Beverly Dierks
 Dr. Jim Doyle
 Frank Drake
 Mae Duggan
 Tom Duncan
 Benjamin Edwards III
 Dr. Eugene Eubanks
 Dr. Sam Evans
 Bonnie Fahrenbrink
 Dr. Celeste Ferguson
 Dr. Mary Ellen Finch
 Dr. Sue Finke
 Virgil Flanigan
 Alan Franklin
 Dr. William Franzen
 Tom F. Frasier
 Becky Fredrickson
 Gene Fritz
 Sandra Gerley
 Cheri Ghan
 Willie Giles
 Floyd Gilzow
 Dr. Andy Glassberg
 Dr. Milton Glick
 Karen Goeke
 Dr. Tom Good
 Gene Guill
 Paul Guptill
 Sam Hamra
 Dr. Robert Harmon
 Larry Harper
 Michael Hartmann
 Charles Henry
 Peter Herschand
 Daryl Hobbs
 Martha Selders Hogerty
 Alan Holtz, M.D.
 Ronald Hough

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 Private Industry Council
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 Department of Elementary and Secondary Education
 Thomas J. White Foundation
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 Missouri Department of Health
 Missouri Ruralist
 Missouri Department of Economic Development
 Metropolitan Community College
 Silver Dollar City, Inc.
 University of Missouri-Columbia
 Missouri Public Service Commission
 St. Joseph's Hospital — Kirkwood
 Southwest Missouri Office on Aging

Robert Jackson	Missouri Division of Energy
Bill Johnson	Missouri Association of Home Health Agencies
Martha Karlovetz	Missouri National Education Association
Bob Kelley	AFL-CIO, St. Louis
Pat Kelly	UMKC — Law School
Duncan Kincheloe	Office of the Governor
Jack C. Knight, Ph.D.	Southwest Missouri State University
Dorothy Knowles	Southwest Missouri Office on Aging
Tom Kruckemeyer	Missouri Budget and Planning
Charles E. Kruse	Missouri Department of Agriculture
Fred Lafser	Lafser and Schreiber, Inc.
Dr. Tom Lawson	Hazelwood Public Schools
Dr. David Leuthold	University of Missouri-Columbia
Bob Lincoln	Eugene Field Elementary School
Willis Linneman	University of Missouri-Columbia
Lenore Loeb	Missouri League of Women Voters
Don Loso	U.S. Dept. of Commerce
Arthur Lucas	Heartland Health System
Dr. David Mahan	Office of Middle School Education
Dr. John Martin	University City School District
Dr. John Mason	Monsanto Fund
Mary Mattione	Missouri Catholic Conference
Jerry McAdams	Maritz, Inc.
Louise McCants, Ph.D.	Metropolitan Community Colleges
Perry McGinnis	Missouri Office of Administration
Dr. Richard McHugh	University of Missouri
Dr. Richard McKenzie	Washington University
Alan McNarie	University of Missouri-Columbia
Kay Medsker	Missouri State Teachers Association
Dr. W.R. Miller	University of Missouri-Columbia
Frederick Minner	Brittany Woods Middle School
Dr. Roger Mitchell	University of Missouri-Columbia
Dr. Michael Montague	Monsanto Company
Sarah Morrison	University of Missouri-St. Louis
Ray Mortimeger	Cuba, Missouri
Dr. Edward Moscovitch	Charles River Associates
Rolla Mottaz	Spencer T. Olin Foundation
John Moten	Laclede Gas Company
Tony Moulton	Missouri Office of Administration
Wayne Muri	Department of Highways and Transportation
Dr. Janet Nazeri	Department of Elementary and Secondary Education
Bill Niblack	Missouri Division of Employment Security
Dr. Richardson Noback	University of Missouri-Kansas City
Ted Noel	St. Louis, Missouri
Thomas Nolan	Missouri Catholic Conference
Ted Northrup	Missouri Department of Health
Gary O'Banion	St. Louis, Missouri
Dr. Martha M. Ozawa	Washington University
Jonathan Peck	Alternative Futures Institute
John Pelzer	Missouri Office of Administration
Max Pepper, M.D., M.P.H.	St. Louis University — School of Medicine
Dr. Don Phares	University of Missouri-St. Louis
Dr. William Phillips	Mallinckrodt, Inc.
Tom Piper	Missouri Department of Health
Alvin A. Plummer	Commission on Human Rights
Richard C. Powell	Governor's Committee on Employment of the Handicapped

Kay Raithel
 Robert Rasmussen
 Dr. Raymond F. Reisler
 Tom Righthouse
 Perry Roberts
 Algin Robinson
 Dennis Roedemeier
 Louis Roth
 Dr. Joe Ryan
 Sachs Properties, Inc.
 Dr. J. Harvey Saunders
 Dr. Ken Schneeberger
 Dr. Eleanor Schwartz
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 Dr. Moisey Shopper
 Gerald Sill
 Marjorie Sirridge, M.D.
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APPENDIX VI

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COMMITTEE ASSIGNMENTS

Gracia Backer Employment	Steve Gildehaus Health and Quality of Life Economic Growth and Development
Bud Barnes Health and Quality of Life	Meyer L. Goldman Health and Quality of Life Employment**
Hector Barreto Health and Quality of Life Economic Growth and Development	David Haggard Health and Quality of Life Education
Dr. Jay Barton Education* Executive	Jerry Hunter, J.D. Economic Growth and Development Education
Dr. Muriel Battle Education Employment	Anne Johnson, D.D.S. Health and Quality of Life** Education
Dr. Lance Beshore Employment Education	Al Kemp Health and Quality of Life Education
Jane Black Health and Quality of Life Education	Clyde Lear Employment Economic Growth and Development
Roy D. Blunt Executive***	Jane Meyer Health and Quality of Life Employment
Duane Christensen Employment* Executive	John H. Poelker Executive**
Ellen Conant Health and Quality of Life* Executive	Bill Powell Employment Economic Growth and Development
Dr. Claudine Cox Economic Growth and Development*** Executive	Dr. John Qualls Economic Growth and Development*** Executive
Dr. William Danforth Education** Health and Quality of Life	Phillip Schreiber Employment Economic Growth and Development
Caroline Ehney Employment Economic Growth and Development	Dr. Burl Self, Jr. Health and Quality of Life Economic Growth and Development
Edward Finkelstein Employment Education	
Don Fischer Employment Economic Growth and Development	*Chairperson **Vice-Chairperson ***Co-Chairperson

